EVALUATION

OF THE

TRAINING IN REPRODUCTIVE HEALTH (TRH III) PROJECT

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ACRONYMS

AED	Academy for Educational Development
ANE	Asia and the Near East
ANM	Auxiliary nurse-midwives
ARH	Adolescent reproductive health
ATS	Advanced Training Skills (course)
BPT	Best Practices in Training (conference)
CA	Cooperating agency
CBT	Competency-based training
CDC	Centers for Disease Control and Prevention
CHO	Community health officer
CHPS	Community-based Health Planning and Services (project)
CMT	Communication, Management and Training Division (G/PHN/POP/CMT)
COTR	Contracting officer's technical representative
CTS	Clinical Training Skills course
CTU	Contraceptive technology update
D&C	Dilation and curettage
DFID	Department for International Development, United Kingdom
DHS	Demographic and Health Survey
Drew	Charles R. Drew University of Medicine and Science
ECASON	East, Central and Southern Africa College of Nursing
ENR	Electronic Nursing Registry
EOC	Emergency obstetric care
FHA/WCA	Family Health and AIDS/West and Central Africa
FHI	Family Health International
FP	Family planning
FPSD	Family Planning Services Division (G/PHN/POP/FPSD)
FS	Field support
FTD	Faculty and Trainer Development
FY	Fiscal year
G/PHN/POP	Bureau for Global Programs, Field Support and Research, Center for Population, Health and Nutrition, Office of Population
GH/PRH	Bureau for Global Health, Office of Population and Reproductive Health
HBCU	Historically black colleges and universities
HCD	Human capacity development
HIV/AIDS	Human immunodeficiency virus/acquired immune deficiency syndrome
HR	Human resources
HTAG	Health technical assistance group
IEC	Information, education, and communication
INTRAH	Program for International Training in Health
IRO	Information Resources Office, JHPIEGO
IRs	Intermediate Results
IUD	Intrauterine device
JHU	Johns Hopkins University
JHU/CCP	Johns Hopkins University Center for Communication Programs
JICA	Japanese International Cooperation Agency
JSI	John Snow, Inc.
LAC	Latin America and the Caribbean
LAM	Lactational amenorrhea method
LPS	Learning and Performance Support Office (JHPIEGO)
MAARD	Modified Acquisition and Assistance Request Document
MAQ	Maximizing Access and Quality
MCH	Maternal and child health
MNH	Maternal and Neonatal Health program
ModCal®	Modified Computer-Assisted Learning
MOE	Ministry of Education
MOH	Ministry of Health
MOHP	Ministry of Health and Population

MSH	Management Sciences for Health
MSM	Morehouse School of Medicine
MVA	Manual vacuum aspiration
NCTN	National Clinical Training Network, Indonesia
NGO	Nongovernmental organization
NMC	Nurses and Midwives Council
NMCM	Nurses and Midwives Council of Malawi
NSV	No-scalpel vasectomy
OIHP	Office of International Health Programs, Morehouse School of Medicine
OJT	On-the-job training
OSCE	Objective structured clinical examination
PAC	Postabortion care
PDA	Personal digital assistant
POPTECH	Population Technical Assistance Project
PRIME	Primary Providers Training and Education in Reproductive Health
PSE	Preservice education
PSS	Performance Support Service
QAP	Quality Assurance Project
RCQHC	Regional Centre for Quality Health Care (Makerere University, Uganda)
REDSO/EA	Regional Economic Development Support Office/East Africa
RH	Reproductive health
RHU	Reproductive health unit
RP	Results Package
SDI	Service Delivery Improvement Division (G/PRH/SDI)
SDP	Service delivery point
SFPS	Santé Familiale et Prevention de SIDA (Family Health and AIDS)
SO	Strategic Objective
SR	Subresult
SSO	Strategic Support Objective
STARH	Sustaining Technical Achievements in Reproductive Health
STI	Sexually transmitted infection
TALC®	Technology-assisted learning center
TFGI	The Futures Group International
TIMS©	Training Information Monitoring System
TRF	Training Results Framework
TRH	Training in Reproductive Health (project)
UMSA	Universidad de Medicina de San Andres
UNFPA	United National Family Planning Agency, United Nations Population Fund
USAID	United States Agency for International Development
VCT	Voluntary counseling and testing
WHO	World Health Organization
ZIHP/JSI	Zambia Integrated Health Project/John Snow, Inc.
ZNFPC	Zimbabwe National Family Planning Council

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EXECUTIVE SUMMARY

INTRODUCTION

This report summarizes the findings, conclusions, and recommendations of the final evaluation of the Training in Reproductive Health (TRH III) cooperative agreement between the U.S. Agency for International Development (USAID) and the JHPIEGO Corporation. The evaluation was conducted in the fall of 2002. JHPIEGO, a nonprofit affiliate of the Johns Hopkins University, is dedicated to improving the health of women and families throughout the world by increasing the number of qualified professionals trained in reproductive health care. JHPIEGO has been conducting training with support from the USAID Office of Population since 1988. The TRH agreement, obligated on September 30, 1998, for $97 million, is the third consecutive agreement awarded to JHPIEGO. The cooperative agreement covers the period from 1998 to 2003.

For the period September 30, 1998 to August 31, 2002, JHPIEGO expended $34,373,619, nearly 75 percent of total TRH funding ($45,998,302 core and field support [FS]/Modified Acquisition and Assistance Request Document [MAARD]). Total bilateral program funding received by JHPIEGO for the same period was $33,162,720; bilateral expenditures through August 2002 totaled $30,442,116. (An analysis of the financial management of the project is provided in section VII, Project Management.)

The principal purposes of the evaluation were to

- assess the extent to which TRH has accomplished the priorities and expected results defined by the Training Results Framework as described in the cooperative agreement, and

- make recommendations about future strategic directions for improved training and performance support.

The evaluation began with an extensive review of background materials and interviews with USAID Bureau for Global Health, Office of Population and Reproductive Health (GH/PRH) and JHPIEGO headquarters staff. Members of the six-person evaluation team visited TRH country programs in Malawi, Zambia, and Ghana. One team member traveled to Bolivia where TRH had a program from 1998 to 2001. Informants in the field included staff from TRH country programs and USAID field Missions and representatives from ministries of health and other government and partner institutions as well as clinical trainers, nurse-midwife faculty, and students. Seven out of 10 USAID Missions surveyed responded to an electronic questionnaire. Clinical observations in the field included postpartum family planning counseling, intrauterine device (IUD) insertion, manual vacuum aspiration (MVA) procedures, and two childbirths.

BACKGROUND

The Strategic Objective for the TRH cooperative agreement is "improved provider performance and sustainable national capacity for training and education in family planning (FP) and reproductive health (RH)." That Strategic Objective is supported by

five strategic themes and four programmatic objectives that directly relate to the Training Results Framework developed by the Communication, Management and Training Division (CMT). The strategic themes that guide the implementation of the TRH project are:

- quality,
- sustainability,
- performance improvement,
- performance support services, and
- evaluation

(These themes are described in more detail in section I, Introduction.)

The overarching programmatic objective of the TRH project is **capacity building**—to expand national capacity for strengthening human resources in order to increase access to and quality of family planning and other selected reproductive health services. The second main objective is to promote and harmonize sound **reproductive health policies** in order to enhance resources and facilitate implementation of sustainable national programs. The two main objectives are complemented by secondary objectives—the development of **learning interventions** and alternative learning approaches to improve the effectiveness and efficiency of integrated reproductive health education, and the development of **global expert resources** to maximize the effectiveness and impact of an expanding group of international reproductive health experts and associated institutions.

KEY FINDINGS AND RECOMMENDATIONS

Capacity Building

Findings

JHPIEGO successfully adopted the performance improvement approach to carry out six primary activities to strengthen reproductive health training systems in national programs. Specific achievements, issues and recommendations pertinent to each activity are discussed in the following sections.

Preservice Education and Inservice Training

In TRH III, the preservice education initiative is largely focused on nursing and midwifery cadres. Medical preservice education is almost exclusively focused on postabortion care (PAC). From September 1998 to June 2002, TRH has strengthened preservice education programs in 15 countries and has established new programs in 7 countries, exceeding the target of 20 programs set at the inception of the project. These countries now have sustainable training systems and are producing competent health care providers to meet reproductive health training and service delivery needs.[1] To date, inservice training programs have been established or strengthened in 27 countries, far exceeding the goal of six inservice training programs targeted at the outset of TRH III. Selected achievements of TRH preservice and inservice training programs include:

[1] See appendix D, JHPIEGO Responses to TRH Evaluation Self-Assessment Questions, August 26, 2002.

- Revised curriculum and training materials have been harmonized with and reflect national guidelines for FP/RH services.

- Infection prevention standards and practices are in place at most clinical sites.[2]

- The self-paced training approach proved to be an effective way to conduct competency-based training (CBT) for no-scalpel vasectomy (NSV) with limited caseloads.

- Cascade training in the dissemination of standards and guidelines proved to be effective (resulting in increased FP knowledge and service provision practices), particularly when coupled with supportive supervision visits.

- PAC services have been strengthened in Turkey, Malawi, Zambia, Guinea, Nepal, Burkina Faso, Senegal, Uganda, Ecuador, and Haiti.

Curriculum Development and Strengthening

The development or strengthening of FP/RH curricular components is a core preservice strengthening intervention. Typically, the FP/RH components are developed in modular form to facilitate integration of the components into an existing training program or adaptation as an independent training document for refresher and/or continuing education activities. Illustrative successes in this area are documented in the Ukraine, where the FP/RH curricular components were successfully incorporated into the government national training system and in Ghana, where the service delivery guidelines and training curricula developed with TRH assistance are now the official standard for the Nurses and Midwives Council (NMC).

Faculty and Trainer Skills Development

The Faculty and Trainer Development Pathway is the approach used by JHPIEGO to build training and teaching capacity. The pathway has two main components: course work and a practice experience (see appendix I). A trainer candidate completes a knowledge update, skills standardization, and a clinical training skills (CTS) course to become a qualified clinical trainer. To date, TRH has produced 420 qualified trainers at different levels (315 clinical trainers, 81 advanced trainers, and 24 master trainers). The competency-based, humanistic approach to training is highly regarded by host country governments and training institutions and has been described by various host government partners as the best approach to ensure that providers have the practical knowledge needed to perform their jobs. Observations in the field as well as TRH evaluations suggest that in order to extend the benefit, value, and long-term impact of training, providers and trainers should have access to knowledge updates, refresher courses, and/or supportive supervision to reinforce learning and the application of newly acquired skills.

[2] Ibid.

PAC and Infection Prevention

PAC represents one of the most powerful tools available to reduce maternal and infant mortality rapidly. Coupled with infection prevention and family planning interventions, PAC can be a highly acceptable and very effective package, valued both by service providers and clients. PAC with infection prevention works because it is simple in concept, relatively low cost, and easy to implement. Program planners can see results in a relatively short time: reduced maternal mortality, reduced infant mortality, and increased use of modern contraceptive methods. In the TRH program, modern FP method acceptance is typically between 50 and 90 percent of post–MVA patients who have been counseled for FP. These results are in accordance with those found in other programs. Post–MVA clients are not typically followed over time; therefore, the contraceptive continuation rates are not known.

Selected Issues in Capacity Building

In some country programs, standards for posttraining competency are higher than the national standards of licensing bodies. Agreement on performance levels for competency is developed in discussions between JHPIEGO and stakeholders (such as ministries of health) and licensing bodies (such as medical or nursing councils). Selection criteria for clinical sites and preceptors are defined and agreed upon between JHPIEGO and stakeholders (usually the Ministry of Health [MOH]), but the MOH is not always able to apply the criteria uniformly to clinical training sites (e.g., in countries where there are a large number of sites associated with a preservice institution). Anatomic models in country programs visited show the effects of heavy use in preservice settings because of large class size. TRH efforts to help ensure a working linkage between preservice education, service delivery, and inservice training have been successful in some countries. However, the support supervision system is inadequate in some settings to address the needs of preceptors and providers. Support supervision often is *not* a priority for the preservice institutions or the MOH so that it can be difficult to implement. There is a need to increase policy advocacy to expand the role of nurses and clinical officers to provide family planning services in countries where TRH is working.

Selected Recommendations

- JHPIEGO should continue to build on collaborative relationships with professional nursing and midwifery organizations as they have done with their board members from the International Confederation of Midwives and the Philippines nursing associations to apply relevant experiences in preservice education. JHPIEGO should develop a collaborative relationship with the American College of Nurse-Midwives to draw from the nursing/midwifery body of literature to inform curriculum development. JHPIEGO should also continue to build on and use its relationship with the Johns Hopkins School of Nursing.

- The supervisory system should be developed/enhanced using the performance improvement framework as a precursor to the preparation of clinical training sites.

- JHPIEGO should increase the number of opportunities for mentoring candidate trainers.

- JHPIEGO should increase the use of service-level data to enhance the TRH approach to training and systems strengthening and build in effective monitoring tools to provide feedback for providers, supervisors, and program planners.

- JHPIEGO should conduct institutionwide refresher skills workshops, infection prevention updates, and continuing education courses (i.e., newborn resuscitation, IUD and Norplant insertion, and MVA skills).

- JHPIEGO should produce learning guides of more durable material as well as multiple checklists as supervisory and learning tools.

- JHPIEGO should work with PAC programs to ensure that mechanisms are in place to follow up PAC/MVA clients after discharge to determine key FP and RH outcomes over time.

Training Management and Monitoring Tools

During the TRH project, JHPIEGO developed various computer-based tools, including the Training Information Management System©, the Electronic Nursing Registry, and the Postabortion Care Logbook and Database. These tools are designed to assist managers in planning and monitoring reproductive health activities. These applications were reviewed to determine if the software supplies relevant information—and only the relevant information—that the user needs to plan and monitor its work.

Training Information Monitoring System (TIMS)

TIMS is used by JHPIEGO Baltimore and some of JHPIEGO's field offices to track training events, trainers, and participants. Currently, the database is not used by all the field offices. JHPIEGO is still determining the best way to synchronize data from decentralized databases. Over the past few years, several JHPIEGO field offices and national organizations in Indonesia, Kenya, Malawi, and Nepal expressed interest in using TIMS for managing local training programs. In response, JHPIEGO has provided TIMS software, manuals, and training to various organizations.

Electronic Nursing Registry (ENR)

The ENR appears to have improved the accuracy of the Nurses and Midwives Council of Malawi's (NMCM) data and reduced significantly the time required to generate critical information for the NMCM. The ENR has the potential to be an essential tool for certification or relicensing initiatives with continuing education requirements. Other parastatal organizations with similar missions, such as medical, dental, or pharmaceutical councils, might also benefit from this tool.

The Postabortion Care Logbook and Database

The Postabortion Care Logbook and Database assists service providers in tracking postabortion care procedures (dilation and curettage [D&C] versus MVA), occurrence of family planning counseling, and family planning acceptance rates among postabortion care patients. The PAC database can function independently in a clinical setting. PAC database users appear to be satisfied with the database and the reports generated. The challenge for the future will be to integrate the use of these reports into the broad PAC program so that program managers become more adept at understanding the progress of their program and managing their resources accordingly.

Recommendations

- JHPIEGO should continue to explore synchronization and web-access options so that TIMS could be made available to all of its field offices.

- The use of TIMS should be expanded to monitor performance of trainers and participants.

- The PAC database should be a standard part of JHPIEGO's PAC programs and integrated into its technical assistance in that area.

Reproductive Health Policy

The overall objective in the area of reproductive health policy is to collaborate with governments and key institutions to promote and harmonize sound reproductive health strategies in order to gain maximum benefit from resources and facilitate implementation of sustainable national programs. TRH has five discrete activities in this area:

- issue identification,
- policy change support,
- policy formulation,
- policy implementation, and
- evaluation.

Findings

TRH's work with governments to expand the role of nurses and clinical officers is one of its major successes in this area. In a number of countries,[3] TRH helped to establish PAC task forces that have been successful in their efforts to introduce and expand PAC services, encourage knowledge sharing across country programs, and orient program managers who are responsible for implementing PAC programs. For example, TRH undertook a policy advocacy initiative in Nepal that resulted in the expansion of the role of auxiliary nurse-midwives so that they can now perform MVA procedures. In Zambia, TRH worked with the PAC task force to establish a 3–phase action plan to expand PAC services to all levels of health care, using a self-directed learning approach. To date, the program has offered comprehensive PAC services to 15,000 patients. In Malawi, clients

[3] See appendix D, JHPIEGO, Responses to TRH Evaluation Self-Assessment Questions, August 26, 2002.

are appropriately counseled for family planning, and 30–90 percent of clients accept an FP method before leaving the hospital. PAC successes in other country settings are noted in section IV of this report.

TRH has experienced some success (Kenya, Bolivia, and Malawi) in the area of preservice and inservice systems integration that allows faculty at the tertiary level to meet with trainers and preceptors at the service delivery level to acquire knowledge and skills and to share experiences.

Selected Policy Issues

The human resource crisis and the resulting shortage of qualified nurses and other health personnel is a major hindrance to the development and quality of health services in countries such as Malawi and Zambia. Service data are not routinely used as management tools. There is a need for learning packages for populations with low literacy rates. There is a critical need for follow up of women who accept family planning after MVA procedures. Monitoring mechanisms are needed to ensure that basic needs are met at service delivery levels, including supplies, logistics, and family planning commodities. There are also needs for uniform recordkeeping of evacuation clients and increased availability of service delivery guidelines.

Recommendations

- JHPIEGO should work with host country governments and donors to fully fund and support the expansion of successful PAC programs in Zambia and other countries. The existing PAC and infection prevention initiative should be reviewed carefully with respect to the possibility of their expansion for countrywide coverage. New initiatives should be undertaken with a view toward countrywide expansion.

- Effective and sustainable monitoring systems should be developed to guide and inform the direction of policy, training, and supervision in the national program.

- JHPIEGO should seek innovative ways of engaging with other partners to ensure that training experiences are translated into effective service delivery in the workplace.

- JHPIEGO should continue to work in collaboration with host government institutions to develop strategies and mechanisms that will help reduce staff attrition and use the TRH Malawi experience as a possible model for engaging in workforce development activities.

- JHPIEGO should consider ways to transfer needed clinical and nonclinical skills to lower level cadres.

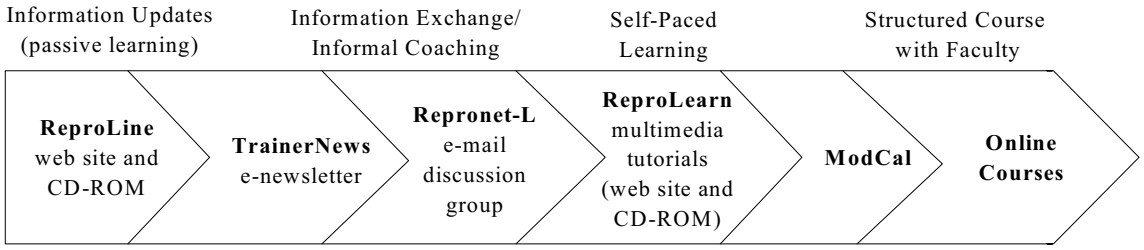
- To ensure national coverage, USAID should invest core funds for expanding the impact of PAC activities to maximize clients' access to family planning.

Alternative Learning Approaches

Findings

JHPIEGO offers a range of performance support tools, including ReproLine®, TrainerNews®, Repronet–L, ReproLearn®, and Modified Computer-Assisted Learning (ModCal®). The overall objective for these technologies is to complement traditional group-based training and to do so in ways that would extend and deepen the impact of its training and technical assistance. Over the last four years, JHPIEGO maintained production of TrainerNews and Repronet–L, expanded the content available through ReproLine, and developed new products, such as ReproLearn. These tools span a continuum of objectives, formats, and media. They address different learning objectives, extending from passive receipt of information to interactive course participation. The tools can involve reading information, asking questions or interacting with others, or engaging in knowledge and skills building through structured online courses.

Figure 1
JHPIEGO Performance Support Tools



Source: JHPIEGO

In an effort to make content available to those who would benefit but might not have access to the technology, JHPIEGO established 11 technology-assisted learning centers (TALCs®) in seven countries over the past three years. TALCs are located in universities, training institutions, or JHPIEGO offices. Each TALC is equipped with 2–10 networked computers that are connected to the Internet and a local printer. Health-related CD–ROMs, such as Reproductive Health Library, Topics in International Health, and ReproLine are available to TALC users.

In the TALCs observed and in review of the logbooks, faculty and trainers appear to be the group least likely to use the services available. In Malawi, between May and September, faculty or trainers accounted for only 2 of the 22 recorded sessions at TALCs and 12 of 50 recorded sessions at the Kamuzu College of Nursing in Lilongwe, although it should be noted that those computers are not yet connected to the Internet.

Issues

Some of the issues raised relate to the cost and limitations in access to new technologies, such as computers and the Internet; the extent to which target audiences have or are likely to have access to these technologies now or in the next few years; and the recognition that JHPIEGO's investments in technology-based alternative approaches are only a part of its

total investment in training materials and curriculum. From a management perspective, an essential question is how JHPIEGO can develop further these performance support products and services to increase its impact and how this can be done using the investment of USAID's core funds to generate field interest and eventually field support.

TrainerNews, the monthly e-mail newsletter, while informative and useful in its current state, needs to expand to cover topics not currently covered and needs to be translated into other languages. Repronet–L, an e-mail–based discussion group, has no system for routinely registering newly trained master trainers. There is a question as to whether JHPIEGO's TALCs are reaching the target audiences and achieving the desired goals. There is concern that the computers in the learning centers are being used for word processing rather than for the web and e-mail. More importantly, due to the financial, technological, and managerial issues that plague all of the TALCs observed, it is not clear whether most TALCs will be able to survive on user fees alone.

Recommendations

- The use of performance support tools should be systematically linked to field activities. Such tools can benefit audiences with whom JHPIEGO does not work directly and can be used in combination with traditional training and technical assistance.

- JHPIEGO should continue to invest in its web and e-mail products to address the substantial demand for the performance support tools available on the web.

- JHPIEGO should focus its investments on access to content, not access to technology. Access to technology has increased significantly while the cost of access has decreased.

- JHPIEGO should evaluate the continuation of investing core funds in other tools and resources to facilitate access to information.

- USAID should look for ways to link technology initiatives with global projects.

- USAID should enhance its investments in dissemination by encouraging cooperating agencies to package materials that are sent to the field.

Global Expert Resources

The four main activities under the global expert resources objective are support of trainers via the performance support service (PSS), development of a global trainer network, support of regional training institutions to promote collaboration among developing countries, and capacity building of historically black colleges and universities (HBCUs). Performance support tools were addressed in the previous section. Key findings, issues, and recommendations pertinent to the global network, regional institutions, and HBCUs are presented in the following sections.

Findings

Global Trainer Network

The global trainer network is comprised of 664 qualified trainers, 1,953 candidate trainers, 212 classroom faculty, and 48 clinical instructors (as of September 30, 2002). While the network has tremendous potential to serve as a resource that promotes continued learning and development of trainers and the effective delivery of training and support services, it is an underutilized resource largely because trainers are not systematically linked to the technical resources or to one another. A survey is now being administered to identify trainer areas of expertise, activities, and support needs, and it should be administered periodically. Additional emphasis should be placed on developing a formal mentoring system, improving access to technical resources and technology-assisted learning tools, and improving knowledge management and communication among trainers in the network.

Reproductive Health Advisor Program

For the past seven years, JHPIEGO has supported the practicum component of the reproductive health advisor program, an M.P.H. degree program for midlevel health care professionals with training experience and leadership potential. Upon completion of the M.P.H., the advisor is employed by the Clinical Services Division for the Learning and Performance Support Office for their one to two year practicum. The program has yielded a pool of seven reproductive health experts (physician/M.P.H.) that can serve the interests and needs of the project and the global trainer network.

Regional Centre for Quality Health Care (RCQHC)

TRH effectively transferred RH knowledge and skills to RCQHC so that the centre now provides technical assistance in the delivery of echo courses in competency-based clinical training (e.g., Norplant, minilaparotomy, emergency obstetric care [EOC]); maternal and neonatal health updates; and supervision for performance and quality improvement. RCQHC provides technical assistance directly to the ministries of health within the region to support the development of RH curricula and job aids (e.g., Norplant, minilaparotomy) and learning packages (EOC).

Historically Black Colleges and Universities (HBCU) Initiative

The TRH HBCU training initiative was established to

- increase the number of staff available to provide technical assistance in reproductive health education and training in international settings, and

- to strengthen the administrative infrastructure and increase the capacity of HBCUs to procure and manage international contracts.

Collaborative partnerships were entered into with the Morehouse School of Medicine (MSM) (1994–1997), and the Charles R. Drew University of Medicine and Science (Drew) (1999–present). Since the inception of the cooperative agreement, TRH has

invested $672,000 in the HBCU initiative. Selected results of the initiative are presented below.

- **MSM**

  - Coordinated health components of the Fourth (1995) and Sixth (1997) Africa/African-American Summits in Ghana and Zimbabwe, respectively.

  - Negotiated a contract with the World Health Organization (WHO) to conduct a series of seminars on maternal and child health and HIV/AIDS at WHO's Center for Health Development in Kobe, Japan, in 1998.

- **Drew**

  - Conducted needs assessments and infection prevention training in Indonesia and reproductive health updates, clinical training skills, and instructional design courses in Peru and Jamaica (TRH, 2002).

  - Awarded a grant by the Bill and Melinda Gates Foundation to conduct cervical cancer screenings in Guatemala.

Issues

Additional trainers with FP/RH expertise are needed to fill human resource gaps and to respond to critical FP/RH needs and priorities. Trainers in the network are not fully aware of the human and technical resources at their disposal; some would benefit from formal mentoring. Regional centers need continued support as they seek to build their own capacity and institutional viability. It is unclear whether or not HBCU trainers are counted among network resources. HBCU RH expertise and training resources are still largely untapped in the international health domain. More opportunities should be created to use/market HBCU newly acquired skills.

Selected Recommendations

- JHPIEGO should solicit input from the field on challenges faced in providing training according to the Faculty and Trainer Development (FTD) Pathway and should identify regional resources to assist with problem solving in order to produce additional qualified trainers.

- The trainer network should be expanded to include private sector providers and cadres at lower levels of the health care system and HBCUs.

- A mentoring and network communications strategy should be developed and/or formalized that makes effective use of reproductive health advisors, regional institutions, and network expertise.

- JHPIEGO should build MSM capacity to function as a technical assistance institution in developing the training capacity of regional institutions, Drew, and other HBCUs.

- JHPIEGO should provide ongoing technical assistance, resources, and support to HBCUs to write competitive bids and increase their marketability in international health.

Management

JHPIEGO's technical assistance approach is much more field oriented and more sensitive to host country concerns than it had been in the past. Some of the observable changes in the project culture and focus include the following:

- The training focus has expanded from physicians to nurses, nurse-midwives, and increasingly, lower level personnel, such as enrolled nurses. Currently, the focus is on preservice and continuing education for health professionals and selective inservice training.

- Country and regional technical staff provide onsite technical assistance and make good use of the network of international advisers.

- It is more adept at seeking partners and collaborating in joint activities.

- It effectively uses the performance improvement approach and provides a broader range of health interventions, including maternal and child health, HIV/AIDS, policy, and monitoring and evaluation systems.

Team observations in the field and interviews with USAID and Mission personnel tend to substantiate the above-mentioned changes as real, continuing, and important, as they help to reinforce a technical assistance approach favored by USAID and provide the Missions and host country institutions with a broad base of assistance. JHPIEGO has adopted a systems approach, which is an analysis of factors that facilitate or inhibit the success of its training activities. In this regard, TRH has incorporated policy-oriented activities and certain monitoring and evaluation activities. Although this is a positive beginning, additional efforts are needed.

The TRH award provided for a funding level of up to $80 million over the four-year period from 1998 to 2002. This included both core and field support (FS)/MAARD funding. Nearing the close of fiscal year (FY) 2002, it appeared that total funding would be near the $50 million level (including about $25 million in core funding and $21 million in FS/MAARD), or an average of $10 million per year. However, it is clear that in some sense TRH may no longer be needed in some countries both because it has achieved a sufficient level of indigenous capacity to provide clinical training and because Missions are increasingly turning to bilateral projects to provide some of the same type of support that TRH has provided. Indeed, JHPIEGO received $33 million in bilateral funding during the same four-year period, including $29 million to support Family Health and AIDS/West Africa Regional Program countries.

Issues

It should be noted that TRH has a limited mandate and very little control over the many component parts in the overall health service delivery system in any given country. Moreover, TRH's scope regarding the training of personnel within the health system generally is limited to those physicians and nurses/nurse-midwives working at the district level or above. With the exception of the Community-based Health Planning and Services (CHPS) project in Ghana, TRH's scope does not extend to personnel below that level who, in essence, deliver the bulk of FP/RH services in many countries. TRH has not had the resources to extend its successes to an entire country. It has been constrained in the use of core funds to fund startups other than PAC.

TRH has difficulty satisfying client needs for current financial information since it is tied to the university accounting system; it cannot always provide USAID with timely data on expenditures and future unexpended obligations. Expenditure data are coded according to the university's procedures and timetable, often resulting in lengthy processing and, at times, in erroneous or misleading information.

Selected Recommendations

- JHPIEGO/TRH should refocus its efforts on FP/RH and examine how to strengthen FP/RH components of all activities, even when drawn into new program areas, such as HIV/AIDS.

- JHPIEGO should continue to pursue a systems approach and broaden it to include other important components of service delivery.

- JHPIEGO should continue to develop and use monitoring systems to validate training approaches and outcomes.

- attempt to assure that its product development efforts are strategic and are driven principally by field needs.

- JHPIEGO should develop as soon as possible a means of providing needed financial data in an accurate and timely form.

CONCLUSIONS

JHPIEGO is complying with the letter and spirit of the TRH cooperative agreement. The project has exceeded its target indicators in key program areas, specifically, strengthening preservice education and inservice training and institutionalizing host country capacity to review, revise, and update family planning and reproductive health service delivery guidelines. JHPIEGO has effectively shifted its program orientation from training to performance improvement and support. This shift in focus has resulted in a more field-based approach to project management, increased emphasis on partnerships and stakeholder engagement, and incorporation of a broader range of program interventions (e.g., supervision systems, HIV/AIDS, policy advocacy, workforce development, and quality assurance) that have a direct bearing on strengthening training systems.

JHPIEGO has been particularly effective in

- establishing a structured trainer development process and implementing the competency-based approach to training,
- creating and disseminating standardized training packages and materials,
- introducing FP/RH curricular components into national training programs,
- advocating for policy change to expand the role of nurses/midwives and clinical officers,
- developing a range of performance support tools, and
- using the performance improvement approach to institutionalize infection prevention practices and programs.

The impact of TRH interventions on provider *and* client behavior is exceedingly clear in some cases. The coupling of PAC and infection prevention has reduced maternal mortality and measurably increased acceptance of modern family planning methods. There is substantial evidence that many of the approaches, products, and tools developed by TRH have been adopted by bilateral programs and other organizations.

TRH has experienced moderate success with the development of training information and monitoring systems. Currently, there is no clear system in place to collect and analyze data from decentralized databases. Additional focus on the use of service-level data to guide and inform the direction of curriculum development, training, support supervision, and policy is warranted. Increased emphasis should be placed on building effective monitoring systems versus investments in time and cost-intensive program evaluations. With regard to technology-based learning approaches, future investments should be focused on increasing access to content versus access to technology. TRH should intensify efforts to market and expand the impact of effective programs including, but not limited to, preservice strengthening, PAC, and infection prevention.

It has become increasingly important for JHPIEGO and other cooperating agencies (CAs) to form strategic alliances and work in partnership with other organizations that function at different levels of the service delivery system to address critical issues related to the attrition of experienced health care providers, decentralization, static or reduced budgets, and the impact of the AIDS pandemic. These systemic issues, if not addressed, will compromise JHPIEGO's ability to affect the significant program gains made over time.

FUTURE DIRECTIONS

USAID is presently undergoing a major effort to restructure its procurements under the newly titled Service Delivery Improvement (SDI) Division (formerly the Family Planning Services Division). Training is one of several components being examined for possible restructuring. Manageability, cost, and effectiveness should be of primary concern. In addition, GH managers are concerned with issues of technical leadership and relevancy (as seen by the field Missions) in an era when it would appear that central

projects are being underutilized as Missions move toward using broad-scale, bilateral projects.

The CAs and contractors very nearly represent USAID's entire body of technical expertise and experience in RH, FP, and other critical program areas. This expertise has been established over a 30–year period and is unparalleled in international public health. This body of expertise is **not** being used as effectively as it might be due to some of the factors discussed in section IX.

The future direction should include the adoption of a systems approach, wherein the individual components of complex systems—such as FP/RH service delivery systems—are identified, realistic strategies are developed leading to realistic interventions, and necessary technical assistance is provided by component specialists working together in the same geographic area at the same time to achieve strategically determined results. Moreover, given that the mix of talent required in each instance depends on the specific circumstances of the intervention effort, future programs need to employ flexible mechanisms to ensure delivery of a variety of high-quality technical assistance. They should also encompass the numerous small-scale USAID–led successes that have never been sufficiently expanded to have countrywide impact. The principal overall challenge to USAID is to find an effective way to join its pool of high-quality technical expertise (represented by its CAs and contractors) with the needs in the field for improved strategic planning, project formulation, targeted and coordinated implementation, and more controllable management units. In so doing, SDI needs to be wary of programming changes that would tend to blunt its specialized technical assistance instruments (i.e., the CAs and contractors), making them similar to a flagship project and perhaps even less relevant to the needs of the field Missions. (In USAID terminology, flagship suggests a consolidation of partner agencies that share the same objective under one procurement vehicle, led by one or more of the partners.)

Many countries still can benefit from specialized technical assistance to assist them in producing needed trainers and providers and in establishing a viable in-country capacity to produce needed personnel in the future. From the USAID perspective—including the Missions—the challenge is to find an efficient way to configure needed technical assistance in training to meet specific in-country needs, both short and long term. Additionally, the need to integrate such training technical assistance effectively with other technical assistance (e.g., in service delivery, outreach, logistics, and monitoring and evaluation) is apparent if desired service-delivery outcomes are to be achieved. It would be advisable not to combine too many elements into a single training project for the following reasons:

- specialization is useful, effective, and highly valued among clients,
- technical leadership is unlikely to be achieved through generalization,
- USAID should not dilute or drain the pool of excellence it has sponsored over the past 30 years, and
- the large central projects are likely to be difficult for USAID to manage.

I. INTRODUCTION

BACKGROUND

Context of the Cooperative Agreement: Agency Results Package

Based on 30 years of experience and success, in 1994, the U.S. Agency for International Development (USAID) adopted five Strategic Support Objectives (SSOs). These objectives are congruent with the principles of the Cairo Program of Action (1994) and USAID's overarching goal of stabilizing world population and protecting human health. The SSOs reflect the Agency's mandate and priorities in the areas of gender and women's empowerment and directly espouse and contribute to the reduction of unintended and mistimed pregnancies, maternal mortality, infant and child mortality, HIV transmission, and threat of infectious diseases. The five SSOs are:

SSO 1: Increased use by women and men of voluntary practices that contribute to reduced fertility

SSO 2: Increased use of key maternal health and nutrition interventions

SSO 3: Increased use of key child health and nutrition interventions

SSO 4: Increased use of improved, effective, and sustainable responses to reduce HIV transmission and mitigate the impact of the HIV/AIDS pandemic

SSO 5: Increased use of effective interventions to reduce the threat of infectious diseases of major public health importance.

Strategic Plan: 1998–2003

In accordance with the Agency's "Directive on Setting and Monitoring Program Strategies," each operational unit developed a strategic plan that distinguished areas of focus, implementation modalities, and evaluation criteria for measuring progress. These strategic plans serve as the foundation both for allocating resources and for assessing performance. In response to this directive, the Bureau for Global Programs, Field Support and Research, Center for Population, Health and Nutrition (G/PHN), developed the Training Results Package. It serves as the main Results Package for training medical and community-based family planning and reproductive health care providers.

When USAID began training more than 20 years ago, the approach was single-method training on an as-needed basis. It has since evolved into comprehensive service delivery training for family planning and reproductive health interventions with an emphasis on systems development to build national capacity. This training includes a more comprehensive human resource development and performance improvement approach, including improving the environment via reproductive health policy, service delivery guidelines, leadership development, logistical and management support, and changing behavior of clients and communities. In 1998, the Communication, Management and Training (CMT) Division developed its Training Results Framework (TRF). This framework called for the achievement of four Intermediate Results (IRs) that contribute

to the Strategic Objective—"improved provider performance and sustainable national capacity for training and education in family planning/reproductive health (FP/RH)." The four IRs are:

IR 1: Strengthened preservice education, inservice training and continuing education systems

IR 2: Improved management support systems for training

IR 3: Improved policy environment for training

IR 4: Better informed and empowered clients

JHPIEGO has been conducting training with support from G/PHN/POP since 1988.[4] The third Training in Reproductive Health (TRH) cooperative agreement was awarded at approximately the same time that the TRF was developed by CMT. The project's relevance to the TRF is illustrated below.

Table 1
TRH Project Relevance to the Training Results Framework

IR 1: Strengthened preservice education, inservice training and continuing education systems	***IR 2: Improved management support systems for training***	***IR 3: Improved policy environment for training***	***IR 4: Better informed and empowered clients***
SR 1.1: Trained faculty and master trainers	SR 2.1: Logistical support for training available	**SR 3.1: Budget and resources for training allocated at the national and regional levels**	*SR 4.1: Women and men better informed about quality services*
SR 1.2: Increased capacity for curriculum development. Training program establishment, implementation and evaluation	**SR 2.2: Policies, procedures and supervision systems in place**	**SR 3.2: Improved national standards, guidelines, norms, and protocols for service delivery and education sites**	SR 4.2: Improved partner communication
SR 1.3: Clinical training sites fully functional	SR 2.3: Financial management systems functioning	**SR 3.3: Improved policy development, dissemination and implementation process**	SR 4.3: Changed community norms to facilitate improved reproductive health behavior
SR 1.4: Quality standards for training maintained	**SR 2.4: Strategic planning capacity and deployment system established**	**SR 3.4: Leadership training, support and mentoring programs in place**	
SR 1.5: Links established between trainers and service delivery points (SDPs)	**SR 2.5: Monitoring and information systems and tools in place to determine training needs**		
SR 1.6: Improved application of information technology	**SR 2.6: Approaches to evaluating effect of training on performance and quality of service tested**		
SR 1.7: Effective approaches for training frontline and nonfrontline nontraditional providers developed, tested and used	SR 2.7: Cost containment and recovery approaches tested and used		

Source: USAID, evaluation scope of work, appendix A.

The blocks with bold text indicate subresults (SRs) where TRH activities directly contribute to the IR. The blocks with italicized text indicate where TRH activities indirectly contribute to the IR.

[4] In 1988, JHPIEGO was awarded the Maternal and Neonatal Health (MNH) cooperative agreement, funded by G/PHN under SO 2, increasing the use of key maternal health and nutrition interventions.

PROJECT DESCRIPTION

The JHPIEGO Corporation, a nonprofit affiliate of the Johns Hopkins University, is dedicated to improving the health of women and families throughout the world by increasing the number of qualified professionals trained in modern reproductive health care. The Training in Reproductive Health (TRH III) agreement is the third consecutive agreement awarded to JHPIEGO. The effective date of the agreement was September 30, 1998, with an estimated completion date of September 29, 2003. The focus and emphasis of TRH III is competency-based training, performance improvement interventions, and collaborative partnerships to promote service delivery improvements and prepare providers to better respond to the needs of women and their families. TRH has had a presence in over 27 countries during the period 1998–2002 (see appendix C). The current agreement has five strategic themes and four programmatic objectives that correspond to the CMT Results Framework.

Strategic Themes

The five strategic themes that guide the implementation of JHPIEGO's work in the field are

- quality,
- sustainability,
- performance improvement,
- performance support service, and
- evaluation and research.

The themes describe broad program priorities and areas of focus. (The definitions presented here were taken from the evaluation scope of work, provided in appendix A.)

Quality

The overall TRH goal in this regard is to expand access to family planning/reproductive health service and strengthen the quality of care provided. TRH accomplishes this using three methods. The first and most recognized method is improving clinical skills among service providers through evidence-based training and learning approaches, thereby expanding the abilities of institutions to respond adequately to the unmet need for FP/RH services.

Sustainability

To increase the likelihood of sustainability, TRH focuses on several key areas. These include developing regional resources, establishing effective partnerships with both public and private sector institutions, increasing the cost-effectiveness of interventions, and promoting financial sustainability. Much of TRH's work in developing sustainable training programs and systems has targeted local partners to develop effective preservice education systems. Additionally, TRH uses the performance improvement approach to strengthen inservice training systems.

Performance Improvement

TRH uses performance improvement to ensure that the skills providers acquire during training are transferred into improved job performance. As a result, TRH pretraining assessment efforts look at those barriers to performance that can be addressed by training as well as those that require nontraining interventions before, during, and after the training event. Moreover, TRH analyzes service delivery situations in the countries in which it works to strengthen the linkage between training and actual job performance.

Performance Support Services

Performance support services (PSS) use electronic and human resources to support a global network of reproductive health faculty, trainers, and their institutions in order to sustain job performance and provide opportunities for professional development. JHPIEGO's role in PSS is the development and support of communications and information exchange systems and directed learning systems as well as the implementation of PSS in countries in which TRH is working.

Evaluation and Research

Through special research and evaluation efforts, TRH documents the impact of integrated RH education and training on performance and assesses the outcome of interventions designed to support maximum learning and performance in the workplace.

Programmatic Objectives

The Strategic Objective (SO) for the project is "improved provider performance and sustainable national capacity for training and education in family planning/reproductive health (FP/RH)." The TRH programmatic objectives contribute to the achievement of IRs 1, 2, and 3 under the SO. The four programmatic objectives are capacity building, reproductive health policy, learning interventions, and global expert resources, as defined below:

- **Capacity Building:** To expand national capacity for strengthening human resources in order to increase access to and quality of family planning and other selected reproductive health services through basic preservice education and training as well as appropriate performance improvement strategies and interventions. Capacity building is the principal objective of TRH III and addresses IRs 1 and 2 of the Results Framework.

- **Reproductive Health Policy:** To collaborate with governments and key institutions to promote and harmonize sound reproductive health policies and strategies through public and private partnerships in order to augment resources and facilitate implementation of sustainable national programs. The RH policy objective principally applies to IR 3 and part of IR 2.

- **Learning Interventions**: To improve the effectiveness and efficiency of integrated reproductive health education and training through the application and transfer of innovative learning approaches, educational resources, and

emerging information technologies. This objective applies specifically to SR 1.6.

- **Global Expert Resources**: To maximize the effectiveness and impact of an expanding group of international reproductive health experts and associated institutions through professional development, institutional partnerships, and the establishment of a global communication and training network. The global expert resources objective applies to SR 3.4 and SR 1.6.

Historically, TRH's focus has been on the improvement of clinical skills of health care providers through training. In the current agreement, the program orientation shifted from training to performance improvement and performance support. This resulted in hiring new staff with different competencies and retraining staff and counterparts in performance improvement and the development of new training materials. At the programming level, the expanded focus on service systems as well as the provider has resulted in new program activities in HIV/AIDS training, supervision, performance improvement, and the transfer of learning; the implementation of alternative learning approaches (on-the-job, self-paced learning packages); expansion into human workforce development and quality assurance initiatives; investment in the development of resources to improve front line workers; policy advocacy that resulted in an expanded role in FP for nurses/midwives and clinical officers; and the development and application of new technologies. The effectiveness and return on investment impact of these program activities are examined in this report.

FINANCIAL SUMMARY

The TRH cooperative agreement was authorized on September 30, 1998, for $97,032,000; it is the third consecutive cooperative agreement awarded to JHPIEGO. The agreement provided for a funding level of up to $80 million over the four-year period 1998–2002. For the period September 30, 1998–August 31, 2002, JHPIEGO expended $34,373,619, nearly 75 percent of total TRH funding ($45,998,302 core and field support/Modified Acquisition and Assistance Request Document [FS/MAARD]). Total bilateral program funding received by JHPIEGO for the same period was $33,162,720; bilateral expenditures through August 2002 totaled $30,442,116. (An analysis of the financial management of the project is provided in section VII, Project Management.)

PURPOSE AND CONTEXT OF THE EVALUATION

An evaluation of the Training in Reproductive Health (III) Project was conducted by a six-person team comprised of a team leader/training specialist; a clinician with expertise in FP/RH in developing countries; a senior program management specialist familiar with global health programs and the evaluation of FP/RH programs; a nurse-midwife with expertise in the clinical, didactic, and curriculum development aspects of nursing education; an information technology specialist with expertise in computer-assisted learning technologies; and a USAID technical adviser with expertise in nursing and midwifery.

The principal purposes of the evaluation were to

- assess the extent to which TRH has accomplished the priorities and expected results defined by the Training Results Framework, as described in the cooperative agreement; and

- make recommendations about future strategic directions for improved training and performance support.

METHODOLOGY

The team reviewed a substantial number of background documents; attended a briefing at JHPIEGO headquarters in Baltimore; interviewed key staff from the Bureau for Global Health, Office of Population and Reproductive Health, Service Delivery Improvement Division (GH/PRH/SDI) at USAID/Washington; and administered electronic surveys to 10 field Missions. Follow-on telephone interviews were conducted with four Missions before and after the field visits.

The team visited three TRH field programs in Malawi, Zambia, and Ghana. Although TRH no longer has a program in Bolivia, the information technology specialist traveled to La Paz and Sucre to assess the project's work related to the development of technology-assisted learning centers (TALCs) and alternative learning approaches. The informants in the field were TRH program staff, representatives from USAID field Missions, USAID–funded cooperating agencies (CAs), ministries of health and host country collaborating partners and institutions, clinical trainers, nurse/midwife faculty at training institutions, and students. One session of a clinical training skills course was observed in Malawi. Clinical observations in the field included postpartum family planning counseling, intrauterine device (IUD) insertion, manual vacuum aspiration (MVA) procedures, and two deliveries.

See appendix B for the list of key informants and persons contacted.

II. MAIN ACHIEVEMENTS UNDER THE STRATEGIC OBJECTIVE

The main achievements under the cooperative agreement are summarized in the following tables. The primary data source for the tables was the JHPIEGO Responses to TRH Evaluation Self-Assessment Questions (appendix D).

A summary of evaluation findings that show the sustainability of TRH training systems development activities and improved provider performance and sustainable national programs also appears in appendix D.

Table 2
Summary of Project Achievements and Results by IR and Project Indicator

CMT Intermediate Result	JHPIEGO Indicators	TRH Achievements
IR 1: Strengthened preservice education, inservice training and continuing education systems	Number of preservice RH training programs established/ strengthened and functioning in one or more of the major preservice training areas (i.e., nursing, midwifery, medicine) **Target: 20 preservice training programs**	As of June 2002, TRH reached 32 preservice cadres in 21 countries; programs ongoing and strengthened in 15 countries; 6 new programs since 1998
IR 2: Improved management support systems for training	Number of inservice RH training programs established/ strengthened and functioning in one or more cadres (i.e., nursing, midwifery, medicine) **Target: 6 inservice training programs**	TRH reached 42 inservice cadres in 27 countries
IR 3: Improved policy environment for training	Number of individual students/trained participants in specific FP/RH service deployed to an appropriate SDP and job assignment after graduation/training **Target: 10 countries**	205 classroom faculty, 38 clinical instructors trained Uganda: 295 graduates trained; 72 percent providing range of health services, including FP/RH (see appendix E for Ghana and Malawi data)
	Number of supervision visits that include supervisors and training to ensure compatibility and continuity between initial follow up of trained providers (by the training organization) and routine/regular supervision of providers **Target: 10 countries**	Progress in 6 countries Ghana: 30 supv. visits Malawi: 16 supv. visits Guinea: 12 follow-up visits Burkina Faso: 27 follow-up visits Zambia: 12 follow-up visits[5]
	A Training Information Monitoring System (TIMS©) has been established at the national/regional/institutional levels that documents the number of FP/RH professionals trained, by method and cadre **Target: 4 countries**	TIMS implemented at 4 country offices (Indonesia, Jamaica, Malawi, Nepal) and by 4 governmental agencies and partners[6]

[5] Data on supervisory visits were not routinely/uniformly collected by implementing partners in the field. The distinction between training and a routine visit with an onsite supervisor present was not always made.

[6] Governmental agencies include TIMS Indonesia national clinical training network, Jamaica Ministry of Health (MOH) and four regional health authorities, Malawi MOH, and Nepal National Health Training Center.

CMT Intermediate Result	JHPIEGO Indicators	TRH Achievements	
	Number of countries in which national service delivery guidelines process (revision, updating, and dissemination) for continuing change in medical and training policies is institutionalized **Target: 5 countries**	TRH supports the capacity of in-country institutions to review, revise, and update FP and RH service delivery guidelines in 27 countries: Africa: 12 Latin America and the Caribbean: 6 Asia and the Near East : 9	
	A group of RH experts and professional trainers (qualified advanced and master trainers) is recognized and utilized internationally for providing RH technical assistance and training **Target: 60 master and advanced trainers, 5 RH experts**	**Candidate**	**Qualified**
		Advanced 102	**Advanced 81**
		Master 21	**Master 24**
		Seven reproductive health advisors (RHAs) developed[7]	

Table 3
Selected TRH Contributions to the Field of Training and Learning

Alternative Learning Approaches	Improving Provider Performance	Building Capacity
▪ Design and implementation of structured **on-the-job training (OJT)** and other **self-paced learning packages** to train • IUD providers (Zimbabwe and Kenya) • No-scalpel vasectomy (NSV) providers (Nepal) • Postabortion care (PAC) providers (Nepal and Zambia) ▪ Use of **Modified Computer-Assisted Learning® Clinical Training Skills (CTS**) in several countries to increase the efficiency and reduce the cost of training clinical trainers ▪ Establishment and maintenance of 11 **TALCs** in 7 countries ▪ Coordination of the development of Maximizing Access and Quality (MAQ) modules	▪ Demonstration of the effectiveness of both **support supervision** and new approaches to updating health care providers ▪ Dissemination of the *Kenya National RH Policy Guidelines and Standards for Service Providers* ▪ Establishment of comprehensive **PAC** interventions in the public sectors of seven countries, including changing national policy in Nepal to permit nurses to provide PAC services ▪ **Integration of performance improvement** into country programs through assistance to implement a performance improvement approach, not only in TRH programs but also in MNH countries, such as Tanzania and Guatemala	▪ Establishment of the **Regional Centre for Quality Health Care (RCQHC**) at Makerere University in Uganda to build regional capacity to advance the quality of health care in Africa ▪ **Historically Black Colleges and Universities (HBCU) initiative:** Provision of support to Morehouse School of Medicine (MSM) and Charles R. Drew University of Medicine and Science (Drew), two HBCUs, to build capacity to manage programs to strengthen training systems, and to provide international technical assistance in FP/RH ▪ Demonstration of sustainability of **preservice education programs** in Turkey and the Philippines

A complete summary of TRH contributions to the field of training and learning is provided in appendix F.

[7] Four RHAs have completed the program; three are at different stages of the practicum.

III. CAPACITY BUILDING

BACKGROUND AND STRATEGY

JHPIEGO works with host-country governments and counterparts to fulfill TRH's overarching objective of building national capacity for reproductive health training and service delivery that is programmatically and financially sustainable. In TRH III, JHPIEGO broadened its focus from training to performance improvement to encompass the wide range of interventions that are needed to have long-term impact on reproductive health. This objective is achieved through six primary interventions:

- preservice education,
- inservice training,
- development and strengthening of service delivery guidelines and curricula,
- selection and strengthening of clinical training sites,
- standardization of the credentialing process and requirements, and
- licensure and certification of graduates and providers.

JHPIEGO's expanded scope of work includes the development of supervisory tools and mechanisms, establishment of a global network of RH experts, and policy advocacy. These interventions are the components of JHPIEGO's Revised Framework for Integrated Reproductive Health Training (see appendix G).

FINDINGS

Findings from training evaluations and other data sources point to the effectiveness of JHPIEGO's approach to strengthening training systems (see appendix D). Selected program achievements are presented in exhibit 1 on the following page.

Preservice Education and Inservice Training

Background

From the inception of the project until June 2002, TRH has assisted 21 countries with preservice education and 27 countries with inservice training. These countries now have sustainable training systems and are producing competent health care providers to meet reproductive health training and service delivery needs (see appendix D). New programs have been established in Ghana (Community-based Health Planning and Services [CHPS] project), Indonesia, the Republic of Georgia, and four of the five Central Asian Republics (Uzbekistan, Kyrgyzstan, Turkmenistan, and Kazakhstan).[8] The training programs target one or more of the three main health care provider cadres—medical, nursing, and midwifery personnel. In TRH III, the preservice education initiative is largely focused on nursing and midwifery cadres.[9] Medical inservice training is almost exclusively focused on PAC.

[8] Indonesia (midwifery), Republic of Georgia, Uzbekistan, Kyrgyzstan, Turkmenistan, and Kazakhstan (medical)
[9] Ibid.

Exhibit 1
Selected TRH Achievements in Building National Capacity for Reproductive Health Training and Service Delivery

- Increased capacity of faculty in medical, nursing, and midwifery training institutions to develop and refine curricula; plan, conduct, and evaluate training: Bolivia, Turkey, Philippines
- Effectively engaged stakeholders at national and district levels to develop and/or revise FP/RH service delivery guidelines that set the standards for clinical practice and supervision: Burkina Faso, Ghana, Haiti, Indonesia, Nepal, and Kenya
- Trained faculty of medical, nursing, and midwifery training institutions consistent with international standards for FP/RH
- Developed learning guides that help students and faculty/trainers focus on critical content
- Effectively used alternative learning approaches (OJT and self-paced learning packages) to train IUD providers in Zimbabwe and Kenya, NSV providers in Nepal, and PAC providers in Nepal and Zambia
- Developed a core group of clinical, advanced, and master trainers in RH
- Disseminated service delivery guidelines to support desired practices
- Assisted in developing country-specific standards for FP/RH service delivery that meet international standards
- Through policy advocacy, helped to create a favorable environment for investment in preservice education in many country settings, including Malawi, Ghana, and Zambia.
- Successfully advocated for expanded practices (i.e., PAC for nonphysician health personnel, specifically nurses and midwives)
- Collaborated with professional credentialing bodies (e.g., Nurses and Midwives Council, Ghana) to update RH component of the preservice curricula and qualifying examinations
- Developed a cadre of faculty and key stakeholders who can periodically update service delivery guidelines
- Developed clinical training sites to support practicum experiences
- Facilitated linkage and collaboration between preceptors and faculty of training institutions, strengthening the link between preservice education and inservice training
- Introduced computer-assisted learning tools for use during CTS workshops, preservice education, and inservice training
- Developed materials to support inservice training (e.g., *Infection Prevention, Contraceptive Technology Updates (CTUs), Reproductive Health Updates, Postabortion Care, and Performance Improvement;* in Jamaica, an inservice training initiative is in the early stages of being implemented for HIV voluntary counseling and testing

Sources: JHPIEGO, Responses to TRH Evaluation Self-Assessment Questions, August 26, 2002, and evaluation team field observations (Malawi, Zambia, and Ghana).

Program components common to both preservice and inservice strengthening include

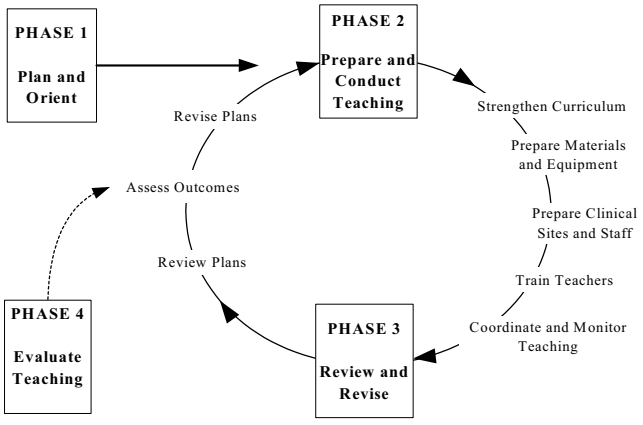
- FP/RH portions of the curriculum/course schedule,
- learning/training materials for implementation of the curricular components,
- faculty/clinical staff knowledge and skills development (technical and training), and
- clinical practice/training sites development.

Other TRH interventions that support training systems strengthening are

- knowledge updates and refresher courses for tutors and clinical preceptors,
- provision of humanistic models,
- development of training materials and learning packages disseminated to training institutions,
- development of supervisory materials and tools to support the application of new skills,
- policy advocacy in support of licensure/certification of providers, and
- advocacy and technical assistance to address human workforce/provider deployment issues.

In May 2002, JHPIEGO pilot tested a new field guide, *Preservice Implementation Guide: A Process for Strengthening Preservice Education,* which reflects lessons learned in more than 20 countries over a seven-year period. The guide describes the four-phase approach used by TRH to create an environment conducive to systems change (see figure 2 below). A brief description of JHPIEGO's approach to strengthening preservice education follows.

Figure 2
Process for Strengthening Preservice Education



The process can be modified or adapted as needed to respond to the needs of a specific program or constituent group. Findings from the field would suggest that phases 3 and 4 are the points at which teachers, preceptors, and clinical staff may encounter the most difficulty. The two main reasons for this are time and human resource constraints (facilities are understaffed, student-to-teacher and client-to-provider ratios are high) and underdeveloped monitoring systems and skills (very often, they are the lowest priority in a resource-constrained setting). The field test of the guide should provide a clearer picture of possible constraints in implementing the four phases and future actions. Reported successes in preservice education that follow the strengthening process are as follows:

- revised curriculum and training materials are in accord with and reflect national guidelines for FP/RH services;

- clinical practice is updated at high-quality service delivery sites by providers and students (e.g., in Uganda, nine clinics offer improved RH services);

- students are trained in and are providing essential services (e.g., in Uganda, over 90 percent of graduates are working in the health field); and

- students' clinical practice contributes to ongoing service delivery (e.g., in the Philippines, all school clinics are designated as SDPs for the government's FP program).

TRH has established or strengthened inservice training programs for 42 cadres in 27 countries; 15 countries were targeted in the cooperative agreement. The increased number of programs is attributable to the ongoing need for PAC and the need for focused inservice family planning training in Central Asia (see appendix D).

The following are the main achievements of TRH inservice training programs:

- PAC services have been strengthened in Turkey, Malawi, Zambia, Guinea, Nepal, Burkina Faso, Senegal, Uganda, Ecuador, and Haiti. The Ghana Mission is planning to revitalize PAC services and training for service delivery under future procurements. PAC skills will be addressed in inservice training, while PAC knowledge will be covered in preservice education.

- Infection prevention standards and practices are in place in most clinical sites.

- The self-paced, computer-based training approach for NSV training was an effective way to conduct competency-based training for NSV with a limited caseload.

- Cascade training for standards and guidelines dissemination was effective (increased FP knowledge and service provision practices), particularly when coupled with support supervision visits.

- Expansion of FP/RH services in Bolivia resulted from inservice training system efforts (1993–98). Training investments made in the system were still in place and functioning over an eight-year period (see appendix D).

Evaluation findings of JHPIEGO's training programs (e.g., Nepal, Moldova, Kenya, and Thailand) indicate that JHPIEGO's competency-based, humanistic approach to training can be highly effective in improving provider performance, particularly when coupled with performance support and follow-on supervision visits (see appendix D). TRH has documented that when providers are trained to meet minimum standards, they are more likely to retain competency following training, and that alternative training approaches, such as OJT, can have a positive effect on provider performance.

While the preponderance of students and faculty states that learning and teaching have been made easier with the use of the learning guides and models, the learning environment can compromise the effectiveness of the competency-based, humanistic approach to training. For example, the findings of the level 3 Ghana study do not clearly demonstrate that skill competency is sustained after the preclinical skills evaluation on the models (see appendix H for a fuller analysis of the evaluation findings). Factors that are known to negatively influence skill retention are an insufficient number of models, insufficient time for practice, insufficient client experiences, large student/preceptor ratios, and/or preceptors with substandard skills. Preservice education classes in Ghana typically have a high student/faculty ratio (45:4).

Other JHPIEGO studies (e.g., Thailand training study) reaffirm the value of the humanistic approach and support investment in a sufficient number of anatomic models to support competency-based, humanistic approaches to learning.

Curriculum Development and Strengthening

The development or strengthening of FP/RH curricular components is a core intervention in preservice strengthening programs. Two examples of TRH's work in that area are noted here. In Ukraine, standard FP/RH curricular components were successfully incorporated into the government national training system and programs for obstetricians/gynecologists, primary care physicians, nurses, and midwives. In Ghana, the service delivery guidelines and training curricula developed with TRH assistance are now the official standard for the Nurses and Midwives Council (NMC). The NMC approved the curriculum changes and incorporated the content into the qualifying examinations. Drawing from experience working with the TRH curriculum strengthening working group, the regional health management team in Kumasi (MOH), formed its own stakeholder group, comprised of CAs and key implementing partners, to review curricula, coordinate training efforts, and develop an integrated training strategy and agenda. [10]

The success of TRH preservice strengthening efforts in Ghana led to the award of field support to TRH for the CHPS project. TRH will work in collaboration with Johns Hopkins University Center for Communication Programs (JHU/CCP) and other institutions to strengthen the preservice curricula for community health training institutions that prepare the cadre of community health officers (CHOs)—auxiliary nurses and clinical officers—for service. The CHOs reside in the rural communities in which

[10] Interview with the principal nursing officer, RH, regional health management team, Kumasi

they work. Part of the work of the CHOs is to create health awareness and build capacity among laypersons within their communities. Thus, in Ghana, CHPS has led TRH to a new cadre of provider that functions at a different level of the service delivery system. In order to be optimally effective in CHPS, TRH will have to customize its teaching methods, technologies, and tools to fit community-level interests and needs. New partnerships are now being formed with that aim in mind. The CHPS project will provide valuable lessons learned as JHPIEGO and others consider future applications of the preservice strengthening process, perhaps with different clients within the system and different areas of technical focus.

Faculty and Trainer Skills Development

The Faculty and Trainer Development (FTD) pathway is the approach used by JHPIEGO to build training and teaching capacity that has two main components: course work and practical experience (see appendix I). Participants on the pathway complete a knowledge update, skills standardization, and a clinical training skills (CTS) course, after which they are designated as a candidate clinical trainer. As part of the practical experience, candidates are required to demonstrate teaching skills under the observation of a trainer qualified at a higher level. Once candidates satisfy the course and practice requirements, they become qualified clinical trainers. Candidates seeking qualification as advanced or master trainers follow a similar process.

CTS is highly regarded by Missions, ministries of health, nursing and midwives councils, and many faculty, trainers, and students in Malawi and Ghana. In describing the impact of the course, one candidate clinical trainer in Malawi remarked that she felt "more confident about demonstration and preceptorship skills as a result of the CTS training and practicum." Others describe the CTS as practical, tailored to their needs, and the "most direct way to improve skills."

The competency-based approach assumes a basic skill level on the part of participants entering the program as a foundation to build upon in the training. That foundation is not solid in some cases; basic clinical skills were found lacking on the part of some preceptors in the field. Given that TRH does not have full control over the selection of preceptors, a clearer strategy is needed for identifying and responding to basic skill development needs.

The *Clinical Training Skills for Reproductive Health Professionals, 2nd Edition (JHPIEGO 1998)*, a reference manual, is an excellent resource for use by preceptors to refine their teaching methodology. The manual cites several valuable references; however, none are from the nursing or midwifery literature. That body of literature should be referenced and drawn upon for training clinical preceptors.

Adoption of the performance improvement framework has clearly contributed to program successes, particularly in the area of infection prevention. Infection prevention in Malawi serves as a good case study.

Infection Prevention in Malawi

Infection prevention has become a widely accepted problem-solving intervention as a result of the TRH performance improvement approach and infection prevention training.

With few exceptions, the clinical sites and health facilities visited during the evaluation—both public sector and mission hospitals—had alternative running water supplies, buckets of decontamination solution, and autoclaves and boilers as well as supplies of disposable gloves. Infection prevention has generated a groundswell of enthusiasm, interest, and new infection prevention practices among providers. The Lilongwe Central Hospital and CHAM Mission Hospital in Likuni have each claimed the title of Model Infection Prevention Center. The infection prevention coordinators, who were trained by TRH, established committees and launched successful infection prevention programs at their respective facilities.

In Malawi's Lilongwe Central Hospital, the central laundry, central sterilizing unit, and kitchen were dramatically transformed in terms of cleanliness and appearance, and a new pattern of one-way traffic was developed to minimize cross-contamination. Similar changes occurred at the CHAM hospital in Likuni. Building on the momentum of visible success, the Likuni infection prevention committee developed a one–year budget for the program and submitted an unsolicited proposal to a private foundation that resulted in a grant to cover the cost of the infection prevention program for one year. Many health facilities are participating in exchange visits to learn and share best practices in infection prevention. These initiatives clearly point to the value and impact of the TRH initiative in infection prevention and the effectiveness and potential of cascade training.

Issues in Capacity Building

Selection Criteria for Clinical Sites and Preceptors Not Well Used

There was scant evidence that midwifery training schools use the selection criteria or the clinical site assessment checklist. Faculty was able to list some desirable characteristics of an appropriate site, but actual selection of the site and preceptor is based on personal preference rather than established criteria. In Ghana, preceptors are often selected by regional or district-level personnel, and are not based on criteria that would ensure minimum standards or that would meet the needs of preceptors and students. Given that there are no extrinsic incentives for taking on the preceptor role, some preceptors who are selected are not at all interested in the job. An interview or other screening process should be put in place to ensure that preceptors are skilled and interested in assuming that role.[11] To address some of these issues in Ghana, preceptors are now required to sign a Memorandum of Understanding confirming their interest in serving as preceptors.

Anatomic Models Are Not Durable Under Heavy Use

Reportedly, anatomic models do not stand up well to repetitive procedures and heavy use (their average life span is two years). The models are shared by training institutions and clinical sites.[12] In *Clinical Training Skills for Reproductive Health Professionals*, it is noted that when using models in clinical training, it is important that sufficient models

[11] Faculty also voiced that training needed to be ongoing to ensure currency in practice. This is validated by a 1997 JHPIEGO study that showed that a little over 50 percent of master trainers were competent in more than 85 percent of clinical skills.

[12] One midwifery training school visited in Ghana had only one model available for demonstration for a class of 45 students. After clinical skills were demonstrated using the model, students were divided into groups of 9–10 and given time to practice; only 5 students were able to practice in the time allotted.

are available (usually one model for two or at most three participants).[13] In the Morocco study, only 54 percent of students had adequate practice time/experience using family planning skills. An insufficient number of models was cited by the students in Morocco as the reason for inadequate access.[14]

TRH recognizes the problems that heavy usage creates; it therefore provides care and maintenance videos as well as repair kits with the models. TRH also indicated that it has not found a more durable model with as many diverse uses as the current model.

Discrepant Views on Competency

It seems that JHPIEGO, the credentialing bodies (NMC and Nurses and Midwives Council of Malawi [NMCM]), and the MOH have slightly different definitions of competency that should be reconciled. JHPIEGO's minimum standard for completion of the knowledge portion of midcourse exams in all countries is 85 percent. In addition, 100 percent of the key clinical steps must be completed to meet minimum standards. In Ghana, the NMC standard for completion of training is 50 percent for written examinations and 65 percent for the practicum. JHPIEGO noted that agreement on performance levels for competency is developed in discussions it holds with stakeholders, such as ministries of health and in-country counterparts, such as medical or nursing councils. In some country programs, standards for posttraining competency are higher than the national standards of licensing bodies. While selection criteria for clinical sites and preceptors are defined and agreed upon between JHPIEGO and stakeholders, the MOH is not always able to apply the criteria uniformly to clinical training sites, for example, where there are a large number of clinical sites associated with a preservice institution.

Need for Expanded Supervisory System

There are limited numbers of adequately prepared supervisors in many settings because supervisory training has not kept pace with clinical training. Supervisory visits conducted every 3 months may not be sufficient to support the application of new skills on the part of inservice training graduates. In addition, problems with travel and logistics inhibit travel/supervisory visits to rural areas.

NMC (Ghana) has not put in place a formal supervisory mechanism to follow up preservice graduates. The NMC's database tracks the location and licensure status of graduates. After 6 weeks, the NMC evaluates students on their labor and delivery skills but not on other skills. At the service delivery point, supervisory visits vary widely in duration from one-half day to 2 days. Announced supervisory visits do not always discover real performance problems. Supervisory visits every 3 months may not be sufficient to support the application of new skills on the part of inservice training graduates. Onsite facilitative supervision is a better option. Failure to use service delivery data to a sufficient degree and the lack of a clear mechanism for providing feedback on service delivery performance to the midwifery training school (MTS) means that some

[13] *Clinical Training Skills for Reproductive Health Professionals*, "Using Competency-Based Assessment Instruments, JHPIEGO, pp. 6–12.
[14] *Strengthening Family Planning and Safe Motherhood Clinical Training in Moroccan Medical Schools: Evaluation of Student Performance,* JHPIEGO, 1999.

performance issues may go unaddressed. To further strengthen the clinical focus of supervisory visits, assessment tools could be modified to include monitoring compliance with service delivery guidelines.

Need for Increased Policy Advocacy in Ghana and Malawi

Although the family planning content has been agreed upon and incorporated into preservice education, current policies prohibit nurse-midwife graduates from providing family planning services—even injectable contraceptives, oral contraception, and barrier methods—unless they complete an inservice program and become certified FP providers. Nonetheless, midwives who are posted to smaller facilities often provide all RH services, including FP, since there are fewer providers in those facilities. JHPIEGO reports that in Malawi, TRH has been working with the Reproductive Health Unit (RHU) of the MOHP and the regulatory bodies to ensure that implementation of the preservice RH component developed under the MOHP/JHPIEGO program will result in students being able to provide basic RH services immediately upon graduation, without having to attend an inservice RH program. The regulatory bodies have indicated that they will accept the recommendation of the RHU and will ensure that all schools incorporate this strengthened RH component into their teaching. TRH programs in Ghana and Malawi should consider replicating the policy advocacy strategy that has been successful in Zambia and the Ukraine.

Low Client Volume Limits Practice Opportunities

In some of the clinical training sites, client volume is not sufficient to offer students the needed clinical practice experiences. For example, in Ghana, the NMC has changed its directive to training institutions, requiring that all midwifery students begin with the antenatal module and enter the clinical practicum (clinical training sites) at the same time, further compounding the issue of inadequate client volume to support training. More often than not, the hours for clinical rotations are fewer than those for didactic sessions, further compromising clinical experiences. JHPIEGO notes that its competency-based training for preservice education seeks some resolution through the use of anatomic models, simulations for learning, and guided practice to ensure the development and retention of clinical skills; other factors are under the control of the higher education authorities.

Attrition of Trained Staff

Attrition of qualified nurse-midwives is on the rise in Africa, leading to a human resource crisis in the health sector. Ministries of health are under more pressure than ever to recruit additional nurses, attract nurses back into service, develop strategies to bond providers to service (e.g., a Memorandum of Understanding in Ghana), and build the capacity of auxiliary nursing cadres. National preservice education systems will be drawn upon to fill the ever-expanding human resource gap to address the emerging human resource development needs for community-based health personnel and/or auxiliary health personnel. Even so, there may still be a considerable need for inservice training, depending on the success of efforts to attract nurses and midwives back to service. Loss of trained nurses and midwives perpetuates the need for inservice training to maintain the resource pool of competent trainers.

Need for Additional/Durable Service Delivery Guidelines and Learning Guides

The learning guides were highly valued and well used in the field. Each guide has only one copy of each skills assessment tool, making it difficult to document the progress of performance over the course of the clinical practicum. This makes it difficult for preceptors and faculty/tutors to share the progress of students and coordinate how best to sustain the needed support to facilitate learning.

One hallmark of the TRH program has been the ability to take national service delivery guidelines and disseminate them to ensure updated provider knowledge and change in provider practice. The service delivery guidelines are highly valued and well utilized in most settings. Service delivery guidelines are referenced in the preservice education curricula. The service delivery guidelines are widely available in Malawi but availability is limited in Ghana. Often the Ghana MTSs have to share the service delivery guidelines with the clinical training sites because, as in many countries, preservice education institutions are not readily identified with an MOH's usual channels for distributing materials and equipment. Recognizing the problem of availability, TRH has been providing the service delivery guidelines to the schools, preceptors, and clinical training sites with whom they have been working. As the service delivery guidelines are becoming integrated into service delivery settings, TRH should collaborate with host governments, other donors, and other CAs to support the development of a uniform strategy for determining compliance with service delivery guidelines at service delivery points.

Service Data Rarely Used in Management Decision-Making

Although the *Guide to Preservice Education Strengthening* and other data sources describe a process for using data, there is scant evidence to suggest that service data are used to make programming decisions. For example, in Zambia, implementation of training to support the provision of PAC services with its high yield of family planning users was not used as a basis to expand that component. The miniscule number of clients choosing IUDs to support training has not been taken into consideration for determining where best to support development of this set of skills (i.e., preservice or inservice). JHPIEGO has noted current plans (e.g., PAC program evaluation in Malawi, October 2002) to utilize PAC service statistics to evaluate and modify national PAC programs.[15]

Other Key Issues

During the field visits, there was no evidence that computer-assisted learning tools are used during preservice education. Computer-assisted learning tools are used by JHPIEGO trainers but faculty and trainers conducting preservice or inservice clinical training do not use these tools. Lack of skills and/or confidence in using computer-assisted learning tools and inaccessibility to/or an insufficient number of computers are the most frequently cited reasons for not using technology-assisted tools.[16]

[15] JHPIEGO reports that it is working with the MOH and health managers in Burkina Faso, Guinea, Haiti and other countries to collect and analyze data to improve decision-making at the clinic level, and to use performance improvement to link performance to service data to improve the quality of services.

[16] JHPIEGO noted that IUD ModCal was fully integrated into the TRH preservice program in the Philippines. TRH was able to obtain funding from the Japanese International Cooperation Agency (JICA) to provide computers to nursing schools in the Philippines. In addition, JHPIEGO was able to obtain

The client perspective is not represented in the assessment of providers or services. JHPIEGO's stakeholder participation is not inclusive below the district level (except in the Brazil program) and may need to be as JHPIEGO branches into preservice education for other cadres.

To further institutionalize preservice education, tutor training institutions should be included in the process of capacity building. In Malawi and Ghana, tutor training institutions were not initially included. However, plans are being finalized to include them in the future. RH and training skills should be incorporated into the curriculum for tutor institutions.

RH guides set the standard for service delivery performance and training, including posttraining follow up. They are a reference that faculty use and that are referred to in the learning guides. The limited availability of guidelines at clinical training sites compromises the quality of supervision.

Recommendations

To **strengthen preceptor skills training and clinical training of nurses and midwives**, JHPIEGO should

- develop collaborative relationships with professional nursing and midwifery organizations that have extensive experience in preservice education;
- add resources, such as the *Nurse Midwifery Preceptor Manual*[17] and *Educating Advance Practice Nurses and Midwives: From Practice to Teaching* to the library of reference materials;[18]
- include information on learning styles, clinical teaching, problem identification, and resolution of problems in the clinical area as part of the curricula; and
- review and adapt guidelines for preparing preceptors (as outlined in appendix J).

Additional emphasis should be placed on *basic* clinical practices (e.g., family planning provision, childbirth, postpartum care) to strengthen training capacity. Providers' level of proficiency as they begin the CTS varies drastically. Basic clinical skills should be standardized before adding the layers of updated knowledge and training skills. Periodic skills assessment of providers entering the pathway may lead to improved targeting/selection of faculty and trainers.

$300,000 from the World Bank's Information for Development Program to translate IUD ModCal into Bahasa for use in Indonesia midwifery training.

[17] McHugh, K. and P. Armstrong, CNEP/FSMFN *Preceptor Training Manual*, Frontier School of Midwifery and Family Nursing, 1991.

[18] Thompson, J. E., R.M. Kershbaum, and M.A. Krisman-Scott, *Educating Advance Practice Nurses and Midwives: From Practice to Teaching*. Springer Publishing Company, Inc., New York, 2001.

JHPIEGO should use the performance improvement approach to **develop criteria for determining appropriate models of supervision** (e.g., peer supervision, facilitative supervision). Supervisory skills training should precede inservice training for service providers. Following supervisory visits, written findings should be sent to sites with follow up with the providers or preceptors. JHPIEGO should also assess the results from monitoring reports that determine the level of compliance with the service delivery guidelines and use those findings to make modifications in training if the noncompliance is a training need and/or collaborate with host government and/or other organizations that may be supporting other components of service delivery for problem-solving.

The number of clinical training sites that meet the standards should be increased before students are sent for their rotations. JHPIEGO should continue discussions with the NMC and/or nursing and midwifery credentialing bodies to reach consensus on the criteria for competence and successful completion of preservice education. The NMC should be encouraged to establish a clinical rotation schedule to reduce competition for clinical practice experiences (with clients and/or humanistic models). The level and frequency of supervisory follow-up visits with preceptors and staff at clinical training sites should be increased to ensure that services meet/satisfy minimum standards. JHPIEGO should work with the NMC or credentialing bodies and training institutions to develop strategies for ensuring smaller student/preceptor ratios, where feasible.

JHPIEGO should **conduct institutionwide refresher workshops** on infection prevention and FP counseling skills to improve the quality of services at clinical training sites as well as sites where new graduates will be deployed, and establish continuing education courses particularly for those skills that are practiced infrequently (i.e., IUD insertion, Norplant insertion and removal, MVA, and newborn resuscitation skills).

The number of resource trainers who can mentor candidate trainers should be increased as well as opportunities for skills practice. A systematic approach to providing trainer support via e-mail, telephone, regular mail, and structured follow up should be developed. The trainer network should be used to pair new trainers with experienced ones for skills strengthening and confidence building. The videotape of the participants' microtraining session can be used as a learning tool during the CTS to help candidate trainers see the practices that they can improve. Where feasible, schedule training practica soon after completion of the CTS to reinforce learning and build provider confidence. There should be adequate intervals between training sessions to allow time for application and reflection. A mechanism for ongoing cotrainer assessment and support should be developed.

The focus on FP at clinical sites should be increased as well as the focus on IUD skills in inservice training. The NMC or credentialing bodies may need to reconsider the appropriateness of including IUD insertion and removal skills at a preservice education level where clinical experiences are limited for a large number of students. Rather, the NMC should focus on the development of these skills in inservice training. Alternatively, staff at clinical training sites should increase their family planning outreach to increase client volume for clinical training. Informed choice in the selection of an FP method should be supplied. However, consistent with informed choice as a quality-of-

care element, there is no assurance that increased client volume would guarantee increased numbers of clients selecting the IUD as their preferred method.[19]

Ensure/advocate for dissemination of service delivery guidelines at all SDPs. In line with the findings of the Kenya dissemination study, the service delivery guidelines should be available at all clinical sites and ideally, at all health facilities. JHPIEGO should collaborate with CAs and partners as needed to ensure the availability of service delivery guidelines.

Tutor training institutions should be an integral part of stakeholder participation and capacity building in preservice education. JHPIEGO should work with the tutor training institutions to prepare tutors who will be capable of providing clinical supervision to students upon completion of tutor training.

To address the attrition of newly trained trainers and preceptors, JHPIEGO should **use/adapt the model of the Ghana Health Services**' Memorandum of Understanding as a guide to developing strategies for the retention of trained personnel.

Learning guides and job aids should be more durable than they are. To increase the longevity of the heavily used learning guides, options for producing the guides as hardcover or laminated-cover copies with a more secure binding should be explored. Making multiple copies of skills assessment checklists available in each module should be considered so that trainers/preceptors and students can document and see progress during training. In addition, local manufacturing options should be explored to determine the feasibility of producing anatomic models that would be more easily available and accessible.

JHPIEGO should collaborate with organizations that are working on quality recognition by accessing client feedback. In doing so, tools to solicit client feedback on provider performance posttraining should be used as a means of ensuring that graduates and providers are performing in a manner that is responsive to the client and consistent with the approved standard of practice.

The use of computer-assisted learning tools should be increased. The clinical training skills course should include instruction in using computer-assisted learning tools to benefit those who have or may potentially have access to computer equipment.

Postabortion Care (PAC) Services

TRH has worked in the area of inservice training to establish model PAC service and training programs in selected countries (e.g., Nepal, Malawi, Zambia, Burkina Faso, Guinea, Senegal, Uganda, Turkey, Ecuador, and Haiti). Inservice training for PAC, often referred to as short-term training, is offered to RH service providers to enable them to acquire, upgrade, or refresh essential skills. The training also provides periodic updates

[19] Until recently, the Ghana NMC had not established a clinical experience requirement for IUD insertion within preservice education. The number is now set at five as a minimum criterion for completion of the clinical practicum in family planning. There is variance in what occurs if the clinical number cannot be met. In Malawi, the NMC would waive the number needed. In Ghana, the number would be waived or the student would be placed in another clinical site to obtain the required number of clinical experiences.

on new RH information and technologies. The development of clinical training sites is an important component of inservice (and preservice) training. The development and standardization of the clinical sites is meant to ensure access to essential equipment, supplies, increased availability of contraceptive service, and adherence to service delivery guidelines and protocols consistent with international standards. TRH provides technical assistance at service delivery points (SDPs) to assess provider performance and provide support as needed.

While the value of integrated services has been promoted for over 30 years, only rarely have the benefits of selective, intelligent, and practical service integration been realized in practice. PAC is one excellent example of how selective integration can work well.

PAC represents one of TRH's most powerful tools for reducing maternal and infant mortality rapidly. Coupled with infection prevention and FP interventions, PAC can be a highly acceptable and very effective package, valued both by service providers and clients. Additionally, it is attractive to program administrators because the cost savings resulting from much shorter hospital stays can be seen immediately.

PAC with infection prevention works because it is simple in concept, relatively low cost and easy to implement, and represents a positive situation for all participants. Administrators like the lower costs, and service providers like the new skills they acquire and the protection from infection afforded them in the workplace. Clients benefit from shorter hospital stays, fewer complications, and counseling for family planning services which should keep them from becoming repeat patients. Program planners can see results in a relatively short time: reduced maternal mortality, reduced infant mortality, and increased use of modern contraceptive methods.

In the TRH program, modern FP method acceptance is typically between 50–90 percent of post–MVA patients who have been counseled for FP. These results are in accordance with those found in other programs. However, in the TRH program (and probably others), the contraceptive continuation rates for post–MVA clients are not known, as the clients are not typically followed over time.

There are three principal challenges to future PAC initiatives: effective expansion to achieve countrywide coverage; building in simple but effective monitoring tools to provide feedback for providers, supervisors, and program planners; and follow up of clients after discharge to determine key FP and RH outcomes over time.

Achievements in PAC

Nepal

In a number of countries,[20] TRH helped to establish PAC task forces that have been successful in their efforts to introduce and expand PAC services, encourage knowledge sharing across country programs, and orient program managers who are responsible for implementing PAC programs. The Nepal example is worth noting here. TRH undertook a policy advocacy initiative in Nepal that resulted in the expansion of the role of auxiliary nurse-midwives such that they can now perform MVA procedures. An assessment of the

[20] Haiti, Nepal, Malawi, Zambia, Burkina Faso, Senegal, and Guinea.

quality of PAC services in Nepal was carried out in 2001.[21] This exercise was performed to assess provider performance; level–3 training evaluations were conducted to determine whether the performance of trained health care providers in inservice training programs met the standards. Findings of the evaluation demonstrated that PAC services are in place and functioning at nine hospitals. This means increased access to PAC services for women living in and outside the Katmandu valley.

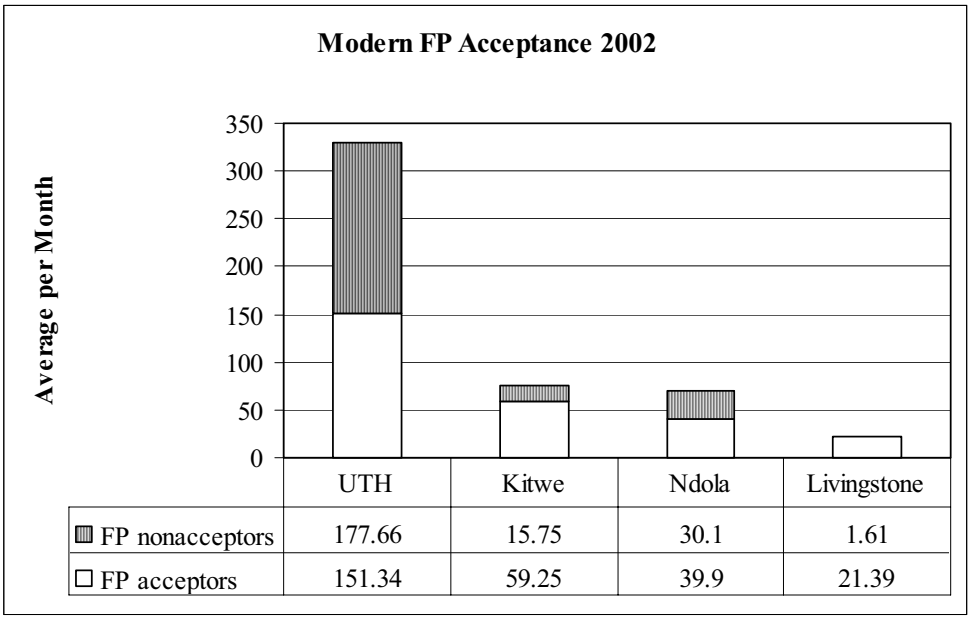
Another benefit of the expanded role of nurse-midwives is the reduction of the workload of operating room physicians and nurses. At hospital settings where nurses are performing PAC procedures, more clients receive the MVA procedure that is safer, faster and less traumatic than dilation and curettage (D&C). Clients also have greater access to FP counseling and referral services.

Zambia

TRH worked with the PAC task force to establish a 3–phase action plan to expand PAC services to all levels of health care using a self-directed learning approach. To date, the program has offered comprehensive PAC services to 15,000 patients. Twenty providers from three national referral hospitals received training in counseling and MVA clinical skills. Over 90 health care providers in four provinces have received infection prevention and contraceptive updates. Sixty-three participants from five hospitals attended the orientation workshop. One hundred and twelve participants from the same hospitals have received infection prevention training, and 106 have completed contraceptive technology update training. Twenty-two participants from the same five hospitals have completed a PAC skills standardization course. Fourteen physicians have taken PAC/OJT skills standardization. At the four central hospitals in Zambia, a trend has emerged over the past two years that shows an increase in family planning uptake after MVA procedures (see figure 3). MVA appears to be rapidly replacing D&C procedures. The medical staff reports that it already sees significant benefits in terms of reduced hospital stays, which have significantly reduced costs; improved provider counseling; and improved family planning acceptance. The field visit to Zambia revealed that infection prevention practices have been institutionalized at the University Teaching Hospital (Lusaka) and the Chipata Central Hospital (Chipata). It was observed that MVA rooms are clean and that staff members are aware of the importance of infection prevention. Doctors and nurses interviewed are knowledgeable and able to demonstrate routine infection prevention procedures. Registered nurses are performing MVA under physician supervision, and physicians who were observed for MVA procedure performed competently and with confidence.

[21] *Assessment of the Quality of Postabortion Care Services in Nepal: Training and Service Delivery Perspective*, 2001.

Figure 3
Family Planning Acceptance in Connection with PAC Services
Findings at Four Central Hospitals in Zambia (2002)



	UTH	Kitwe	Ndola	Livingstone
FP nonacceptors	177.66	15.75	30.1	1.61
FP acceptors	151.34	59.25	39.9	21.39

Malawi

Field observations at Blantyre and Zomba central hospitals revealed that the master trainer for the PAC–structured OJT performs MVA procedures according to standard guidelines. Essential instruments necessary for MVA procedures are available and sterilization procedures are maintained appropriately. Family planning commodities are available at the MVA site. Clients are appropriately counseled for family planning, and approximately 31–90 percent of clients accept an FP method before leaving the hospital. PAC services are monitored on a daily basis and findings are entered into the TRH PAC database. Quarterly reports are submitted to MOH/RHU, using the quarterly facility report of the Malawi MOH/RHU for postabortion.

PAC services found in other country settings include the following:

- Haiti: Quality PAC services were functional at 10 sites,
- Burkina Faso: PAC services were established at 10 regional maternities,
- Guinea: PAC services were operational in three regional maternities,
- Malawi: PAC services met the standards and 30–90 percent were FP acceptors, and
- Senegal: PAC services were integrated at two regional maternities in Louga and Thies.

Issues in PAC

Follow up of post–MVA patients is necessary to support sustained contraceptive behavior. Observations of PAC services in Malawi and Zambia revealed that clients discharged from service with the contraceptive of their choice were not scheduled for follow-up visits. In addition, there was no follow up of clients referred for family planning methods, making it difficult to track contraceptive uptake.

There is little evidence of the use of service data to guide program management and decision-making. Service data should be used as a management tool to guide and strengthen training interventions. Monitoring of PAC service data at all service levels will help ensure maximum responsiveness to provider and client needs. For example, PAC service statistics that show high levels of postabortion procedure bleeding and admission for completion of evacuation may suggest the need for OJT or refresher training on MVA.[22]

In some countries, the shortage of contraceptive supply, decontamination solutions (such as JIK), and MVA kits pose a major challenge to the provision of safe and comprehensive PAC services. Implementation of the performance improvement approach systemwide would support service sites in coordinate budgetary allowances and supplies of contraceptives and decontamination solutions from central or district stores. It would also help TRH coordinate with other agencies and/or organizations to ensure a reliable supply of MVA kits.

Recommendations

To strengthen and safeguard gains made in developing and institutionalizing PAC skills in the face of staff attrition, JHPIEGO should implement the following recommendations:

- **Work with host country governments and donors to fully fund and support the expansion of successful PAC programs in Zambia and other countries.** The investment needed to expand the impact of PAC services in Zambia is approximately $800,000 over five years. To ensure national coverage, USAID should invest core funds for expanding PAC activities to maximize clients' access to family planning.

- **Develop a system to follow up MVA/FP clients after they leave the referral hospitals.** A quick study (versus a lengthy, expensive evaluation) should be undertaken to assess the impact of family planning counseling on contraceptive behavior following MVA procedures.

[22] Decision-making related to the use of analgesia during MVA:
The MVA procedure observed in Malawi was performed according to standard. Verbacaine was the pain control method used; however, it was clear that the procedure was uncomfortable for the patient. In the learning guide for labor and delivery, it is recommended that IV Demerol be used for the repair of cervical and vaginal lacerations. When interviewing the midwife and nurses who participated in the MVA procedures at Queen Elizabeth Central Hospital in Blantyre, they stated that they had used Demerol for pain relief prior to JHPIEGO's training interventions. However, due to the practice guidelines that had been developed, use of Demerol had been stopped. Thus, service data and feedback from supervisory visits are essential to the process of developing service delivery guidelines, standards, and supervisory tools.

- **Apply the performance improvement approach to help address issues concerning essential equipment and contraceptive supply (e.g., bleach and MVA kits and other essential RH commodities).** JHPIEGO should work with other organizations and/or donors to reduce/eliminate stockouts of FP supplies.

- **Find effective ways to link with outreach services below the district level.** In many African countries, more than 60 percent of the population resides in rural settings. Consequently, more emphasis should be placed on information dissemination and increasing access to RH training and services in underserved areas.

- **Develop a system to track MVA/PAC clients and make better use of service data in management decision-making.**

Training Management and Monitoring Tools

Every program manager needs up-to-date, reliable, and complete information about all aspects of the program in order to make well-informed management decisions about program performance and operations, to develop projections, and to plan for the future. During the TRH project, JHPIEGO developed various computer-based tools, including the Training Information Monitoring System©, the Electronic Nursing Registry, and the Postabortion Care Logbook and Database. These tools are designed to assist managers in planning and monitoring reproductive health activities. These applications were reviewed to determine if the software supplies relevant information—and only the relevant information—that the user needs for planning and monitoring.

Training Information Monitoring System (TIMS)

According to JHPIEGO, TIMS is a computer-based tool to track and monitor training events, participants, and trainers. Information about each person's skills, qualifications, and location, along with courses taken or courses taught is stored in a Microsoft 2000 Access™ database application. Twenty-three standard reports are included in TIMS, and a database administrator can use MS Access 2000 query and reporting tools to add customized reports. TIMS currently is being used in three ways in three different types of organizations:

- as an internal monitoring tool for JHPIEGO,

- as a planning and monitoring tool for national training organizations, and

- as a complement to human resource and information systems in ministries of health.

JHPIEGO developed TIMS to address its own need to answer questions concerning the number of people trained and following them after training. Initially, training data were collected from the field offices and sent to Baltimore where they were compiled and shared. As an internal management tool, TIMS is used by JHPIEGO/Baltimore and some of JHPIEGO's field offices to track training events, trainers, and participants. Currently,

the database is not used by all the field offices. JHPIEGO is still determining the best way to synchronize data from decentralized databases.

Over the past few years, several JHPIEGO field offices and national organizations in Indonesia, Kenya, Malawi, and Nepal expressed interest in using TIMS for monitoring local training programs. In response, JHPIEGO has provided TIMS software, manuals, and training to various organizations. In Malawi, JHPIEGO has been asked to introduce TIMS to the departments of reproductive health and human resources. These two settings may illustrate some of the opportunities and challenges of introducing and using TIMS in external organizations.

The RHU, which is responsible for overseeing inservice clinical training provided by various donors and agencies, would like to track which providers are trained in different topic areas. To assist the RHU, JHPIEGO has agreed to customize its TIMS software. Currently, the JHPIEGO field office in Malawi has set up TIMS in its office and is entering data from 1999 to the present. JHPIEGO plans to transfer the database to the RHU; the RHU has recently approved the addition of a new post for a person to manage TIMS. In preparation for systems implementation, the RHU has asked agencies with which it works to ensure that participant registration forms are completed for any RHU–related training and returned to the RHU. Participants must use their unique registration number to complete the forms. The RHU has agreed to hire another staff person to enter the data.

The Malawian MOH's human resources (HR) department is also interested in TIMS to project training needs, deploy trained personnel, and track training in addition to a large number of other personnel information needs. JHPIEGO has proposed to provide access to TIMS to the HR department as well. While the HR department could benefit from access to the information generated by TIMS, the introduction of TIMS in this kind of setting raises some questions. For example, the government of Malawi has purchased and is deploying a commercially available human resources management software for use throughout all its ministries. While the deployment of this software is not what would be desired, the software has the potential to generate the type of data that the HR department would receive from TIMS.

Recommendations

Provider performance needs to be tracked. There did not appear to be any place in either the participant's or the trainer's profile in TIMS to track performance. For example, the trainer's profile includes information on the number of courses offered, participants in attendance, and course name, but there is no place to record participant evaluations of the trainer. If participants' skills are measured during or after the training, this information does not appear to be recorded either.

JHPIEGO should continue to explore synchronization and web-access options so that TIMS could be made available to all the field offices.

JHPIEGO should evaluate commercially available software to determine if there is an existing product that will meet these needs. Developing a customized software product requires planning for version updates, language changes, and maintaining contact with all software users. JHPIEGO does not currently have a large user base for TIMS, so these

factors are less relevant, but if the user base continues to expand, JHPIEGO should evaluate its long-term commitment to maintaining software products.

While TIMS could be well suited to the MOH HR context, it seems likely to be more appropriate when there is not an appropriate commercially available software in place and when the data in question are not collected using other forms. Wherever possible, JHPIEGO and other agencies should minimize the routine data collection demands on service-delivery providers. JHPIEGO is sensitive to these concerns and will continue to monitor the status of implementation and alternative option to TIMS for the HR department.

Given the staffing constraints and resource shortages in Malawi, it would be preferable to minimize the additional labor requirements placed on the RHU. It is not clear how feasible it will be for the RHU to find and keep a data entry person in the office to maintain the data. If faster Internet connections become possible, it would be preferable to create a web-accessible database into which agencies and donors could directly enter training data. JHPIEGO might wish to develop a web-accessible database for its own purposes and eventually make that available to other organizations when the infrastructure is eventually in place to support that application.

Electronic Nursing Registry

At the request of the Nurses and Midwives Council of Malawi (NMCM), JHPIEGO developed an Electronic Nursing Registry (ENR) to track the number of nurses and midwives currently registered to practice and their work location. Before the introduction of the ENR, the NMCM maintained a paper-based tracking system. Searching through the cards was cumbersome and time consuming, information was not easily or immediately available, and changes in surnames made filing and retrieving information very difficult.

In February 2001, JHPIEGO began the development of the ENR in an MS Access 2000 database. The purposes of the ENR are to determine the number of nurses/midwifes that

- are currently registered and distribute this information to key organizations,
- have not renewed their licenses and liaise with their facilities to determine the reason, and
- are working in or outside of Malawi and the distribution between rural/urban and government/private facilities.

Over the past 6 months, JHPIEGO completed the database and oriented NMCM to its use. An initial letter was mailed out to all previously registered nurses to confirm their status; JHPIEGO continues to cull and clean the data. The NMCM can now generate reports on lists of practicing nurses per facility and identify who has not renewed their license. When nurses are not registered, the NMCM can send database-generated letters to the facilities in which they practice to alert them to that fact as well as to produce validation letters for those who are still certified.

The ENR appears to have improved the accuracy of the NMCM's data and reduced significantly the time required to generate critical information for the NMCM. The ENR has the potential to be an essential tool for certification or relicensing initiatives with continuing education requirements. Other parastatal organizations with similar missions, such as medical, dental, or pharmaceutical councils, might also benefit from this tool.

Postabortion Care Logbook and Database

The Postabortion Care Logbook and Database is another simple database designed by JHPIEGO to fill a very specific program niche. The logbook assists service providers in tracking PAC procedures (D&C versus MVA), occurrence of FP counseling, and FP acceptance rates among PAC patients. The PAC database can function independently in a clinical setting.

While there may be a few minor issues reported in the implementation of the PAC database (e.g., D&C patients are not attended to in the same clinic so the data are not as easy to collect), PAC database users appear to be satisfied with the database and the reports generated. The challenge for the future will be to integrate the use of these reports into the broad PAC program so that program managers become more adept at understanding the progress of their program and managing their resources accordingly.

As with the ENR, the PAC database has tremendous potential to assist service providers in managing a discrete service delivery component. This information tool should be a standard part of JHPIEGO's PAC programs and integrated into its technical assistance in that area.

IV. REPRODUCTIVE HEALTH POLICY

BACKGROUND

The overall objective of the TRH policy component is to collaborate with governments and key institutions to promote and harmonize sound reproductive health policies in order to gain maximum benefit from resources and facilitate implementation of sustainable national programs. Through public and private partnerships, the TRH project has helped develop sound RH policies for training and consequently for service delivery. Changes in policy are often necessary to achieve program objectives and ensure success.

The specific objectives for the policy component are:

1. Assist governments and other stakeholders to use data gained from country-specific RH training and resource sector assessments to develop health policies consistent with international standards, address gaps in RH educational training systems, and maximize quality of and access to RH services;

2. Advocate with governments and private universities and institutions to strengthen basic RH education in health professional schools. These institutions, which are not highly donor dependent, need to have up-to-date curricula, qualified faculty and clinical trainers, and adult-oriented, learner-driven, and competency-based teaching materials,

3. With public and private institutions and professional health associations, define the most appropriate role for preservice education and inservice training, including RH updates, the introduction of new educational approaches, services, clinical procedures, and/or continuing education courses;

4. In their qualification requirements for professional certification and licensure, advocate with governments to include RH topics, especially the provision of appropriate contraceptive methods;

5. Advocate with key institutions to include in their budgets (or to also gain from other donors) continuing financial support for preservice education and inservice training programs;

6. With public-sector service institutions and preservice professional health schools, advocate the importance of supervision systems. Within existing supervision systems, JHPIEGO assists institutions in strengthening the skills of their clinical and administrative supervisors and strengthens the link between training and supervision; and

7. Assist governments and key institutions to develop strategies for the dissemination of updated RH policies, norms, and standards.

The policy development agenda is advanced by five discrete activities: issue identification, policy change support, policy formulation, policy implementation, and evaluation.

ACHIEVEMENTS

TRH has enjoyed remarkable success working in collaboration with host governments to expand the role of nurses and clinical officers to allow those cadres to perform simple clinical procedures, such as MVA, Norplant, and IUD. In the past, it was widely accepted that only physicians can/should perform MVA procedures. However, as a result of advocacy and training interventions, nonphysician health care providers were able to demonstrate their competence in the delivery of PAC services and to persuade decision-makers to change policy. TRH advocacy contributed to policy change in Nepal, Zambia, Malawi, Haiti, Ukraine, and Turkey. During the field visits to Zambia and Malawi, the evaluation team observed the competence of nurses and clinical officers performing MVA procedures and gathered data that show the positive impact of policy change at the service delivery level.

The incorporation of family planning counseling after the MVA procedure is another example of a successful policy intervention by TRH. This has been followed by successful advocacy for policy change in the Ukraine, for example, so that midwives and physician assistants can provide contraceptive counseling to clients.

Preservice and inservice systems integration, in countries such as Kenya, Bolivia, and Malawi, is another example of a policy activity successfully undertaken by TRH. This approach allows faculty at the tertiary level to meet with trainers and preceptors at the service delivery level to acquire knowledge and skills and to share experiences.

Service Delivery Guidelines

TRH provides assistance in establishing guidelines that will set the standards for the skills and knowledge needed by each type of provider, define the necessary content for training courses, and guide the revision of assessment and monitoring tools. A few examples of project accomplishments in this area are discussed in the following sections.

The *Malawi Reproductive Health Service Delivery Guidelines* contain detailed information on all family planning methods available in Malawi as well as chapters on other RH services/topics, including PAC, adolescent health, sexually transmitted infections (STIs), HIV/AIDS, prevention of mother-to-child transmission, prevention of cervical and breast cancer, and infection prevention. The service delivery guidelines are available at the central hospitals of Lilongwe, Blantyre, and Zomba, and are being appreciated and used by all trainers at the clinical training sites. In all three regions in Malawi, health care providers from the government, parastatals, and private institutions have been trained and provided with an orientation package based on the guidelines for the purpose of training their colleagues on the job. Master trainers also are being used for inservice training, undertaken by the host government where trainers are using these guidelines. Furthermore, these trainers are being used by other donors (e.g., United Nations Population Fund [UNFPA]) to carry out training activities in different districts within the country.

In Ghana, the national service delivery guidelines are available and are being used in all health institutions in the country. Similarly, in Nepal, guidelines and protocols developed with TRH assistance are the basis of all national training materials for family planning and are being used widely. In Haiti, TRH collaborated with the MOH and with Management Sciences for Health (MSH) to develop FP/RH service delivery guidelines. These guidelines, along with PAC protocols, are being used nationwide. Updated family planning guidelines are being used in maternal and child health (MCH)/FP centers and in preservice education and inservice training in Turkey.

The Sustaining Technical Achievements in Reproductive Health (STARH) bilateral project used the Jamaica family planning service delivery guidelines, developed with TRH assistance, as a source for consolidating and updating Indonesia's national family planning service delivery guidelines.

Integrated national reproductive health service delivery guidelines have been officially endorsed and widely distributed in Zimbabwe. Medical barriers to FP/RH services have been reduced. The guidelines also have helped with the sharing of experiences between the Zimbabwe National Family Planning Council (ZNFPC) and MOH/Child Welfare. This sharing has served to strengthen their relationship regarding preservice education. This example shows how local resources can be called upon to share their technical expertise. ZNFPC trainers have conducted training for the MOH/Child Welfare nursing faculty, allowing ZNFPC to share its technical expertise with the ministry. This procedure now is continuously used to provide support for preservice educational institutions.

Guidelines and protocols developed with TRH assistance are being widely used by Kenya's Ministry of Health. Family Health International (FHI) and the Population Council conducted an evaluation of the effectiveness of the national dissemination of updated reproductive health/family planning guidelines in 2001. The results from that evaluation clearly indicate that family planning guidelines, when properly disseminated, can improve practices. While this evaluation showed that those providers who attended the training performed better than their coworkers, it also showed that the echo effect was significant. Knowledge of both updated and nonupdated providers improved significantly. For example, 90 percent of interviewed providers, who did not attend updates, said their colleagues who attended the training updated them. Of the 68 percent of providers at baseline who thought that nonmenstruating clients should be sent home to await menses before receiving the prescribed contraception, only 41 percent of the group receiving the update, and only 9 percent of the group receiving both an update and support supervision, thought that those women should be sent home.

It is also necessary that guidelines be widely disseminated. This is a key step in performance improvement because guidelines represent best practices. In most countries, TRH's dissemination strategy typically involves 2 to 3–day workshops—learning interventions designed to improve provider performance. In the Ukraine, 3–day workshops were conducted for providers on using the guidelines, addressing barriers to access, and highlighting what was new and progressive. Ukrainian administrators were included in the workshops to familiarize them with the guidelines. The inclusion of administrators in workshops fits well with the Hanning and Spanberg idea that it is easier for implementers to adhere to policy if it is supported strongly by management and political decision-makers. This process also is seen in Zambia, where the PAC National

Expansion Program first conducts a 3 to 4–day workshop to orient policy managers to the technical areas of PAC, infection prevention, and FP/RH linkages, to explain the importance of such programs, and to assist the managers in understanding their own roles in the expansion of the program at service delivery sites.

Infection Prevention

Infection prevention is the area in which TRH has had the most effect in terms of changing institutional policies to improve performance. In Nepal, Malawi, Zambia, and Ghana, TRH set important goals for performance improvement. In each country, after a core group of providers received infection prevention training, infection prevention control committees were formed at hospitals and policies were drafted. These policies were then submitted to the hospital administration and approved. Infection prevention integration with PAC services has been especially effective and well received.

The Malawi MOHP has developed a national infection prevention standards assessment tool as part of its performance improvement effort. In each central hospital as well as in district hospitals, an infection prevention task force committee has been formed. Each ward within these hospitals is undertaking an assessment to ascertain the materials and supplies required for infection prevention. These requirements will be submitted to the infection prevention committee, which then will forward the request to the administration of the hospital. Improvements in infection prevention practices already have been noticed at the central hospitals of Malawi. Providers are seen to be practicing infection prevention practices at service delivery levels and are knowledgeable about the benefits of following infection prevention practices. Service delivery guidelines for PAC and FP/RH, including infection prevention services, were developed and disseminated at districts. A system to demonstrate the caseload and quality of PAC service delivery at the district level has been initiated (Malawi MOH/RHU postabortion care quarterly monitoring facility reporting). The MOHP is reviewing a proposal to establish a secretariat to manage the MOHP's inservice training system.

In Zambia, a TRH effort is underway to implement the policy of infection prevention practices within the PAC program. This effort is countrywide, encompassing provincial and district-level hospitals through national-level support as well as provincial and district health management teams. The government is finalizing service delivery guidelines and there is an ongoing effort to implement the guidelines at all levels.

STRATEGIC PLANNING CONSIDERATIONS IN REPRODUCTIVE HEALTH

Unlike many CAs, the preponderance of JHPIEGO's work is centered at the national level, working with ministries of health and education in preservice education, inservice training, service delivery guidelines, FP/RH policy, human resources planning, and specific interventions, such as infection prevention and PAC. It is thus well positioned to assist host country institutions to think and act strategically with respect to their policies and programs. Some of TRH's work can be expected to have countrywide impact, especially policy interventions and service-delivery guidelines which, presumably, relate to services delivered in all public health facilities. Other interventions, including preservice and inservice training, PAC and infection prevention programs, and monitoring tools may or may not achieve countrywide application and impact, depending on a host of factors, including

- political support,
- priority of the activity,
- a practical implementation plan,
- funding availability,
- availability of trained and committed host country personnel to lead the effort,
- period of time external technical assistance support is provided, and
- unforeseen factors.

JHPIEGO, its partners, USAID, and the wider donor community can act in ways that ultimately will result in the expansion of successful interventions.

Preservice education is an example. In Turkey, JHPIEGO has been successful in establishing in-country capacity to design and implement effective preservice training in FP/RH in a number of medical and nursing schools. About seventeen medical schools (out of about 48 in the whole country) were involved in the TRH program, and it is believed that this number is critical in guaranteeing that the work will continue and be spread to other schools. Only about 16 of 98 nursing schools were involved in Turkey before the overall Turkey program was terminated. Mission personnel believe that this number probably was not quite high enough to guarantee continuation, and wish JHPIEGO had had another two or more years in-country. In other countries, similar good work in preservice education, inservice training, infection prevention, and PAC has not often been expanded for various reasons.

In the future, both USAID and JHPIEGO need to make a concerted effort so that good ideas, approaches, and outcomes can be expanded widely to benefit whole countries, not just selected areas within them.

ISSUES

One of the major issues in RH policy is the acute and deepening shortage of qualified health personnel working in the public health system in many countries. TRH is working to help host governments better understand needs and to plan for the production of needed personnel.

The present shortage of health personnel and acute deficit of nurses, in particular, is a major hindrance to the development and quality of health services in countries such as Malawi and Zambia. To ensure the adequate and equitable distribution of appropriately trained and effective staff to provide planned health services in Malawi, the National Human Resources Advisory Committee prepared the Project Financing Proposal for Human Resources Development in the Health Sector. USAID/Malawi reviewed this proposal and requested that JHPIEGO develop a scope of work outlining potential USAID/Malawi-supported interventions that it could initiate to address this personnel crisis in the health sector.

TRH is working with local host governments in the improvement of human resources below the national and district levels. It is revising learning packages for populations with a low literacy rate as well as developing additional strategic partnerships with both public and private organizations.

Other issues in RH policy include the need for

- capacity building within the host country to continue updating service delivery guidelines on a regular basis;
- follow up of women who accept family planning after MVA procedures;
- uniform recordkeeping of evacuation clients, including those who had undergone a D&C;
- adequate number of service delivery guidelines present at the trainer/trainee level; and
- monitoring mechanisms developed and in place to ensure that basic needs are met at service delivery levels, including supplies, logistics, and family planning commodities.

RECOMMENDATIONS

- JHPIEGO should seek to find innovative ways of engaging with other partners in implementation to ensure that training experiences actually are translated into effective service delivery in the workplace.
- Wherever feasible, JHPIEGO should work with host governments and other partners to expand the impact of PAC services and should integrate the use of infection prevention and a standard PAC database for monitoring.
- JHPIEGO should continue to work in collaboration with host government institutions to develop strategies and mechanisms that will help in reducing staff attrition due to conditions of service.
- Given that some staff attrition will likely continue and that in many settings it impossible to train nurses and nurse-midwives in sufficient numbers to meet the need, JHPIEGO should consider ways to transfer needed clinical and nonclinical skills to lower level cadres (enrolled nurses and auxiliaries).
- JHPIEGO should encourage and clarify the process for client follow up and referral at service delivery points (e.g., follow up of clients who received family planning after MVA procedures and a study to see the impact of counseling and family planning services after MVA procedures).
- Wherever appropriate, JHPIEGO should encourage workshops for local nongovernmental organizations (NGOs), church groups, community leaders, and other partners working on reproductive health and family planning regarding emerging issues in FP/RH.
- JHPIEGO should coordinate with organizations to conduct intensive information, education, and communication (IEC) activities, both at the community and service delivery levels to ensure access and availability of FP/RH services.

- JHPIEGO should promote the use of its performance improvement process to identify critical gaps in FP/RH policy that have an impact on the quality of service delivery.

- Both JHPIEGO and USAID need to act strategically to help ensure the expansion of successful programs.

V. ALTERNATIVE LEARNING APPROACHES

USING INFORMATION AND COMMUNICATION TECHNOLOGIES TO SUPPORT TRAINING IN REPRODUCTIVE HEALTH

At the inception of JHPIEGO's Training in Reproductive Health project, JHPIEGO envisioned that it would develop applications of Internet and multimedia CD–ROM technology to complement its traditional face-to-face training and to do so in ways that would extend and deepen the impact of its training and technical assistance. TRH proposed to use alternative learning approaches to provide ongoing support to trainers and reproductive health professionals as well as to disseminate JHPIEGO's tools and materials to a broader audience.

People learn in many different ways and no single methodology meets all learners' needs; technology-based learning tools complement JHPIEGO's face-to-face training and provide yet another approach for reinforcing learning. These alternative learning approaches span technology-assisted learning, simulations, self-paced learning, information exchange, and monitoring. The aim of improved applications of technology is to support the formation of capable trainers and providers, who in turn would strengthen their respective preservice, inservice, and continuing education systems.

This section explores JHPIEGO's strategies for promoting alternative learning and explores the impact of these tools on training or learning, cost reduction or increased staff efficiency, or improved project planning and monitoring.

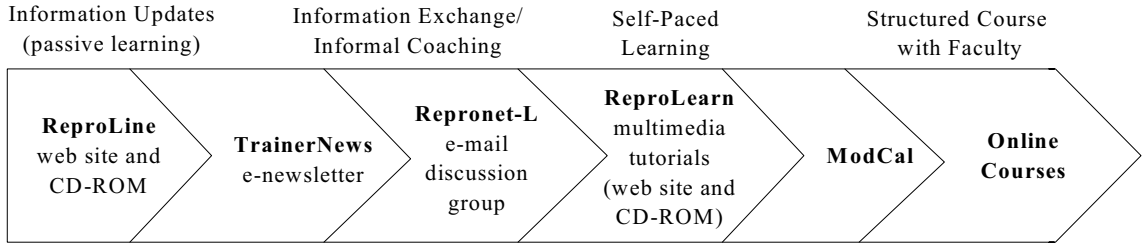
INFORMATION AND LEARNING TECHOLOGY FOR LOW RESOURCE SETTINGS

Reproductive health trainers in developing countries, including the 2,523 trainers who had participated in JHPIEGO training, need continued support and education on the job to maintain their knowledge and skills. Traditionally, performance support tools lagged behind other training efforts in developing country organizations, especially government institutions. Organizations lacked the resources to provide routine supervision to geographically dispersed staff. National certification or licensure—in countries where such regulations exist—did not often require any continuing education or demonstrated competence. Without opportunities to continue learning and training, professionals lose motivation and skills, leave the workforce, or stagnate in their jobs.

JHPIEGO developed a series of performance support tools delivered through various media, each with different functions, levels of interaction, and varying degrees of structured learning to provide this ongoing support to trainers and reproductive health care providers (see figure 4 on the following page). Since learning styles vary, JHPIEGO's use of a wide array of learning tools complements JHPIEGO's traditional face-to-face training and provides yet another approach for reinforcing adult learners' skills and knowledge. JHPIEGO makes a significant investment in developing content for courses, trainers' tools, and new materials. Through the use of new technologies, it can gain from this investment by adapting these materials to different media, making them accessible to a wider audience than JHPIEGO can reach through traditional training.

JHPIEGO offers a range of performance support tools, including ReproLine®, TrainerNews®, Repronet–L, ReproLearn®, and Modified Computer-Assisted Learning (ModCal®). Over the last four years, JHPIEGO maintained production of TrainerNews and Repronet–L, expanded the content available through ReproLine, and developed new products such as ReproLearn. The main components of these support tools, their content, functions, target audiences, and observed results are described below.

Figure 4
JHPIEGO Performance Support Tools



Source: JHPIEGO

ReproLine

Reproline (www.reproline.org) includes reference information and tools on topics such as family planning, maternal and neonatal health, and HIV/AIDS. Visitors to the site can find tools such as presentation graphics, case studies, role plays, ice breakers, model schedules, and other planning tools. The site is designed to be easily accessible to users in developing countries (e.g., few graphics, text only version available, easy site navigation). All the material on the site is available in English, and some print materials have been translated into French, Portuguese, Russian, or Spanish.

Currently, there are 60,000–80,000 user sessions[23] per month.[24] As of August 2002, 27.15 percent of the 89,641 user sessions whose location could be identified were from international locations.[25] Visitors from over 133 countries have viewed the site, but most identifiable visitors come from the following 10 countries: the United States,[26] Mexico, Brazil, Canada, France, Spain, Australia, United Kingdom, Argentina, and Chile. As of December 2001, the most popular sections of the site were the Reading Room (reference materials), Family Planning, Tools for Trainers, Maternal Nutrition and Health, related reproductive health topics, and cervical cancer. Currently, users download 3,000 trainer presentations (available in PowerPoint) per month. The most popular presentation topics are combined oral contraceptives, emergency contraception, condoms, and withdrawal (retiro in Spanish) based on reports of file downloads.

[23] A user session is each unique session recorded by tracking the Internet Protocol address assigned to a computer connected to the Internet.
[24] WebTrends Report, covers January 1, 2001 to December 31, 2001.
[25] Ibid.
[26] Visitors from the United States may be overestimated because JHPIEGO groups all unidentified users into this category.

JHPIEGO developed and maintains ReproLine in such a way that the site's content can be transferred to CD–ROM.[27] JHPIEGO distributes an estimated 1,500 CD–ROMs of ReproLine annually at conferences and to users who do not have easy access to the Internet. Updated ReproLine CD–ROMs are routinely sent to JHPIEGO's field offices, and Baltimore-based staff take copies when they travel to field sites or to conferences.

TrainerNews

TrainerNews is a monthly electronic newsletter sent to 972 subscribers, including 280 subscribers of Repronet–L. The newsletter covers training skills articles and tips, clinical updates, and JHPIEGO activities, events, and announcements.

According to JHPIEGO's 2001 user survey, most respondents indicated that TrainerNews provided useful information for their work or studies (35 percent strongly agree, 57 percent agree) and did so in a timely manner (25 percent strongly agree, 68 percent agree).[28] Respondents reported that the most useful sections were training skills (58 percent), useful web sites (17 percent), and What's New in ReproLine (16 percent). Newsletter recipients wrote that they used the information in the newsletter for professional interest and development (76 percent); preparation for teaching/training (68 percent); preparing reports, papers, or journal articles (34 percent); or developing policy or national service guidelines (21 percent).

Readers recommended several improvements or enhancements to the newsletter: translation into other languages; coverage on topics such as adult learning principles, training for community-based health care providers, management of training programs, health ethics, and contraceptive methods; and hosting a discussion forum, which JHPIEGO already does.

Repronet–L

Repronet–L, an e-mail–based discussion group, reaches 280 subscribers. Approximately three to five messages a month are currently posted to the list, usually one or two of which come from JHPIEGO staff. There are approximately one to four queries monthly from list members, varying from questions about HIV/AIDS and breastfeeding to training techniques. English language posts dominate the discussion. Although periodic efforts are made to ensure that JHPIEGO–trained trainers and professionals receive these e-mail products, to date, JHPIEGO does not currently have a system for routinely registering newly trained master trainers to Repronet–L or TrainerNews.

ReproLearn

ReproLearn, self-paced tutorials delivered via the World Wide Web, e-mail, or CD–ROM, cover current health topics, such as HIV/AIDS, infection prevention, and standard

[27] To maintain a site that can be transferred easily to CD–ROM without requiring the addition of extra licensed software, JHPIEGO maintains its web site by converting all new materials into HTML pages rather than using time and labor-saving databases that can convert MS Word or other standard files into HTML–compatible pages without additional manual coding. The downside of these databases is that without the software, these pages cannot be viewed with browsers such as Netscape or Internet Explorer.

[28] JHPIEGO TrainerNews Survey Results and Drawing Winners, TrainerNews, August 1, 2001. Text available at http://www.reproline.jhu.edu/english/6read/6issues/6jtn/v4/tn17survey.htm.

days method. The latter was developed in conjunction with Georgetown's Institute for Reproductive Health. These tutorials—the major new tool developed during TRH III—are short, self-paced tutorials that professionals can complete without participating in a formal course. The tutorials integrate presentations in the form of PowerPoint files, accompanied by audio recordings (which are also available as text transcripts), quizzes, and links to other materials. There is no instructor although JHPIEGO has enlisted experts to present the material. Between March and August 2002, there have been 367 visits to the HIV/AIDS and infection prevention tutorials training on the web.

In general, users of web-based tutorials may miss interaction with other students and faculty, but they appreciate the opportunity to continue their studies at a time and place of their choice, on their own schedule, and for their own purposes.[29] Self-paced tutorials can be developed quickly and at a relatively low cost. JHPIEGO estimates that development costs are approximately $20,000 per module and can be developed in a few months.

CD–ROMs Online Learning

ModCal represents JHPIEGO's most sophisticated learning application. Users of ModCal learn about clinical training and IUD insertion by completing structured modules. Information is conveyed to users via standard text, graphics, and audio and video images. Pre and postassessment tests measure progress. JHPIEGO staff developed ModCal over several years. To date, ModCal has been used in various countries, including the Philippines, Jamaica, and Kenya. Evaluation results show that training time can be halved if ModCal is substituted for initial orientation training and that alternative training approaches can work in developing country settings.

This alternative training approach is suitable for topics such as IUD insertion, an area in which the core content is unlikely to change substantially at this point in time. JHPIEGO reports that the cost of developing a product such as ModCal is substantially higher than that of a ReproLearn tutorial.

TECHNOLOGY–ASSISTED LEARNING CENTERS (TALCs)

Four years ago, when JHPIEGO launched TRH III, only a small number of African countries had local Internet access. JHPIEGO staff members were concerned that many of their materials would not be accessible to those who could benefit from them. To make their products more widely available to target audiences, JHPIEGO created TALCs—Internet-enabled computer centers in select universities and national training centers.

JHPIEGO has established 11 TALCs in 9 countries over the past three years.[30] TALCs are located in universities, training institutions, or JHPIEGO offices. Each TALC is equipped with 2–10 networked computers that are connected to the Internet and a local printer. Health-related CD–ROMs, such as Reproductive Health Library, Topics in International Health, and ReproLine, are available to TALC users.

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[29] Likhite, N. "Evaluation of Partners in Population and Development's Web-based Distance Learning Course," unpublished paper prepared by Management Sciences for Health, July 2001.

[30] TALCs are located in Haiti, Ecuador, Nepal, Uganda, Kenya, Uzbekistan, Bolivia, Malawi, and Ghana.

JHPIEGO aimed to improve the health of women and their families by increasing professional and academic access to up-to-date reproductive health information through the establishment of TALCs in institutions with which JHPIEGO works. The specific objectives are to

- provide information and communication technology access to faculty and trainers,
- provide information and communication technology access to students and reproductive health professionals, and
- increase the capacity of host country institutions to fulfill their mission (e.g., deliver quality reproductive health education or training).

JHPIEGO selected sites for TALCs based on the appropriateness of the facility available (secure, with electricity), a readily available user base, privatized national Internet service providers, administrative staff willing to manage the center, and the potential for financial sustainability through cost recovery. JHPIEGO provided training and technical assistance to equip and establish the centers and to train the staff and faculty. Once equipped and functional, the TALCs, were open to use by faculty, staff, and students; users were charged an hourly fee. In general, JHPIEGO supported centers for one year of operation, after which the centers operated independently. The core cost of establishing one TALC in Bolivia was approximately $38,000 during this initial period.

TALC Users: Reaching the Target Audiences

JHPIEGO created the TALCs to provide faculty, trainers, and students with access to reproductive health information. Where they were allowed access, students have been the primary users of the TALCs, followed by staff. In Malawi, students are not permitted to use the TALCs in some sites, in contrast to Sucre and La Paz, Bolivia, where students are the primary users of TALCs. In Sucre, the schools of nursing and medicine recorded 302 nursing student sessions over a one-year period and 3,819 medical student user sessions over 6 months. TALC administrators thought that the different usage patterns might be due to the fact that medical students tend to be more affluent and thus able to pay for access to the TALC. In La Paz, 5,293 user sessions were recorded during the TALC's first year of operation. That number declined during the second year to 1,910 user sessions during the first 8.5 months of 2001. This might be due to the fact that Internet cafés opened nearby or because the type of Internet access changed, slowing access speeds. The TALC manager speculated that user sessions had declined further because of administrative changes that will be discussed later.

In the TALCs observed and in review of the logbooks, faculty and trainers appear to be the group least likely to use the services available. In Malawi, between May and September, faculty or trainers accounted for only 2 of the 22 recorded sessions at TALC and 12 of 50 recorded sessions at the Kamuzu College of Nursing in Lilongwe (although it must be noted that those computers are not yet connected to the Internet).

In the faculty of medicine in Sucre, Bolivia, faculty use of the TALC accounted for only 1 percent of the total use of the center from January to June 2002.[31] According to a JHPIEGO evaluation of the TALC in the Universidad Mayor de San Andres (UMSA) Escuela de Enfermería, in Bolivia, 42 percent of the faculty reported using the center 1–3 times per month. However, 50 percent of the faculty never used the TALC because they have access to another computer.[32] Nearly 76 percent of the faculty reported having access to computers at home. As a result of the establishment of the TALC, UMSA faculty of medicine installed a local area network with 52 computers, one or two per department, so many faculty members can access computers and the Internet in their departments.

JHPIEGO's internal evaluation findings suggest that students were using the TALC to "take charge of their education, find answers to their academic questions, and produce better quality coursework." While JHPIEGO expected a trickle-down effect of updated knowledge from faculty to students, for example, the evaluation revealed that the reverse was occurring, with students becoming the major users of the TALC (while faculty seemed to be using departmental or other computer resources).

TALC Uses: Achieving the Desired Goal

Although the logbook formats include a space for users to describe their reason for using the TALC, these data do not appear to be systematically collected. A review of TALC books in four TALCs in Malawi indicates that users in these centers are primarily using computers for word processing, and to a lesser extent, for web and e-mail access. In Zomba, 8 out of 22 user sessions over a 4–month period were recorded as family planning or reproductive health related. In Lilongwe, a faculty trainer used the TALC twice for reproductive health–related work.

In Bolivia, JHPIEGO conducted an indepth evaluation of Internet use, including surveys of faculty and medical students. Asked about the types of computer resources they used regularly (at the TALC or elsewhere), 60–90 percent of the faculty reported that they used Microsoft Office products, 25 percent used the World Wide Web, and 12–13 percent used CD–ROMs. Medical students were less likely than faculty to use MS Office (38–76 percent), but more students use the World Wide Web (64 percent) and CD–ROMs (25 percent). Half of the faculty and 57 percent of students use e-mail.[33]

Nearly half of the faculty respondents (16 of 33) mentioned specific web sites that they used. The most frequently mentioned sites were ReproLine, Hollis, MEDLINE, MedSpain, and Mediconet. Two thirds of the 288 students who participated in the survey also identified specific sites. Medical students reported that they frequently visited Diario Medico, Ladiba, MEDLINE, ReproLine, and Medscape.

[31] TALC Manager.
[32] Catherine Schenk-Yglesias et al., *Increasing Access to Reproductive Health Information in Low Resource Settings: Evaluation of a Technology-Assisted Learning Center in Bolivia*, JHPIEGO, July 2002.
[33] Ibid., pp. 19–20.

TALC Sustainability

Financial, technological, and managerial issues plagued all of the TALCs observed. JHPIEGO created the TALCs to be financially sustainable, and while some TALCs have made progress toward sustainability, it is not clear whether most TALCs will be able to survive on user fees alone. It is not clear if any analysis on demand and ability to pay was conducted prior to establishing the TALC to determine the size of the center needed and the initial fee. In interviews, no TALC manager reported budgeting for maintenance and replacement of equipment. In any case, in the TALCs in Sucre and La Paz that were generating income, TALC managers did not know what their actual expenditures had been nor did they have control over the income generated because that was given to the university. In the TALCs in La Paz and Lilongwe, TALC managers reported basic computer problems (broken monitor, damaged hub, difficulty installing CD–ROMs on the server) that they could not afford to fix.

The UMSA TALC in Bolivia illustrates the myriad reasons why creating a sustainable service will be a challenge. Starting from the first days the TALC operated, the TALC collected a user fee of approximately 80 cents per hour. During the first year, almost $3,600 in user fees was received, which was nearly enough to cover 50 percent of the TALC's Internet connection cost. During the second year, a decision was made to link the TALC to the newly installed faculty network of computers, and through this network, connect to the Internet. The TALC manager decided to cancel the dedicated Internet connection to reduce costs. However, that meant that the eight computers in the TALC shared a single 64K Internet connection with the other computers (more than 50) in the school. In other words, access in the TALCs became very slow, much slower than in the cyber cafés cropping up around the school, which charged the same or lower fees. The competitive pricing and fast access at the cyber cafés attracted some TALC users.

In addition, at the end of the first year, the university also decided to enforce a norm that requires the bursar to collect all university-related fees, including TALC fees. Although the TALC is open from 8 a.m. to 7 p.m., the bursar's window is only open from 9 to 11 a.m. and from 2 to5 p.m. Students who fail to buy a ticket from the bursar during those hours cannot use the TALC—another impediment to use.

Finally, one of the TALC's workstations was stolen, reducing the number of computers available for rent; the TALC did not have enough money to replace the stolen computer. The net effect of these changes has been a reduction in fees collected.

Maintenance of equipment is closely related to financial sustainability. Ideally, the fee for use would be set at a level that covered all the direct costs of operating the center, not just the costs of the Internet connection. The TALC manager would plan for equipment replacement and save some amount each month toward that end. TALC managers would also have to plan and save for contingencies, such as network problems or machine repairs. In two of the four TALCs visited, TALC managers reported some problem with the equipment that their staff could not fix and resources were not available to bring in external technical support. Even for tasks that are relatively simple, such as making a CD–ROM accessible to all network users, two TALC managers reported that they did not have the expertise in-house to do that and would need to contract outside services.

ISSUES

In interviews, various respondents raised general (and legitimate) concerns about the cost and limits in access to new technologies, but these should be considered from the perspective that

- access to computers and the Internet continues to expand in developing countries, and as the user base grows, the costs of access drop;

- to the extent that target audiences have or are likely to have access to these technologies now or in the next few years, it may be worthwhile to develop tools that take advantage of the potential of these new technologies; and

- JHPIEGO's investments in technology-based alternative approaches are only a part of its total investment in training materials and curriculum.

From a management perspective, an essential question is how JHPIEGO can develop further these performance support products and services to increase their impact. A secondary question is how this can be done using the investment of USAID's core funds to generate field interest and eventually field support.

RECOMMENDATIONS

JHPIEGO should systematically link the use of performance support tools to field activities. While JHPIEGO's performance support tools can benefit audiences with whom JHPIEGO does not work directly, these tools may be most effective when used in combination with traditional training and technical assistance. However, it is not clear that this link is routinely made. For example, participants in JHPIEGO training courses should receive TrainerNews if they have an e-mail account (and ReproLine CD–ROMs). All master trainers with e-mail accounts should receive regular updates and TrainerNews should be one of the major ways in which JHPIEGO maintains contact and informs its master trainers. It is true that not everyone has e-mail, but there should be a mechanism for adding those who do and who are interested in JHPIEGO's e-mail lists. The cost is relatively low and wider distribution will enhance JHPIEGO's investments in content development.

JHPIEGO should continue to invest in its web and e-mail products. JHPIEGO's monitoring data indicate that there is substantial demand for the performance support tools available on the web. As Internet access continues to expand in developing countries, barriers in access to technology are replaced with barriers in access to the web's content because of language differences. Rather than invest in developing content products for new technologies, such as personal digital assistants or note pads that are even less widely available and understood than web or e-mail, JHPIEGO should focus its investments in making its content more accessible to non-English speakers.

Currently, not all the information available in English on ReproLine is available in other languages. JHPIEGO should evaluate how to make its site be fully multilingual. At a minimum, given the significant number of visitors from Latin America, e-mail newsletters should be available in Spanish. If feasible, JHPIEGO could expand the

number of ReproLearn tutorials available in other languages, although this might be built into field programs, especially in Latin America.

USAID should enhance its investments in dissemination by encouraging CAs to package materials being sent to the field. Once the content is developed, the cost of producing additional ReproLine CD–ROMs is relatively low. High distribution costs, however, are the major impediment to wide dissemination of CD–ROMs. However, if a USAID–supported collaborating organization is already shipping materials, USAID might want to consider encouraging packaging materials together. For example, JHU/CCP distributes approximately 75,000 copies of each issue of Population Reports. Many of the users of POPLINE might also benefit from access to ReproLine. If the ReproLine and POPLINE CD–ROMs were packaged together and inserted into mailings of the print version of Population Reports, the additional costs of distribution would be minimal.

JHPIEGO should focus its investments on access to content, not access to technology. Access to technology has increased significantly in many regions and the cost of access has decreased. When JHPIEGO launched TRH, the Internet was not widely available in many developing countries. Today it is available in every African capital. Access to the Internet continues to expand, albeit slowly, and while the costs of individual access are beyond the means of many individuals, increasingly organizations in developing countries are able to connect to the Internet.

While Internet access in universities and medical settings is desirable, even essential, it is not clear that it is JHPIEGO's comparative advantage to fill this gap. JHPIEGO's experiment with the TALCs has produced mixed results. In general, the centers are still functioning and fulfilling local demands for access to computers and the Internet. Some unexpected positive results, such as networking the faculty of medicine in La Paz, have resulted from the TALC initiatives. For example, the establishment of the TALC in the UMSA library prompted the faculty of medicine to install a local area network, to equip all the departments with computers, and to connect these to the Internet.

However, in four of the five TALCs visited, financial, managerial, and/or technological problems were reported or observed. These problems could be addressed, but that would take additional time, staff or consultants, and resources. The creation of sustainable, functioning TALCs would require a greater investment than computers, training, and a year of support.

JHPIEGO should evaluate whether it makes sense to continue to invest core funds in other ways to facilitate access to its information. For example, rather than create TALCs, JHPIEGO could continue to build and expand distribution of its CD–ROMs through its field offices. Organization and individuals with whom JHPIEGO works could be sent routine updates of ReproLine on CD–ROM. In addition, JHPIEGO should identify organizations with their own local area networks and ask if ReproLine, ReproLearn, and other CD–ROMs can be installed on local servers. Any user can have access to these programs without the cost and inconvenience of connecting to the Internet. For example, the College of Health Sciences in Lilongwe had computers in its departments as well as a student computer center. (It should be noted that many of the computers in the student computer center were no longer functioning.) The World Bank funded the creation of a

wide-area network among the ministries so that when the Ministry of Health is connected and computers installed, JHPIEGO's information could be included on this intranet. In addition to looking for alternative ways to make information available to organizations, JHPIEGO could look for ways to increase the distribution of CD–ROMs. For example, all faculty could regularly receive CD–ROM updates of ReproLine to use wherever they have access.

USAID should look for ways to link technology initiatives with global projects. Although access to the Internet is expanding, there is still a significant gap in access that cannot be ignored. Many developing country organizations often lack equipment, trained personnel to maintain this equipment, and resources to pay for either equipment or personnel. To respond to this need in a way that would benefit a substantial number of users or organizations would require an investment in resources and assistance over an extended period of time. Other organizations, such as the World Bank, the United Nations, private foundations, and national organizations are undertaking these investments. If USAID can link global projects that generate specialized content accessible via the Internet with technology initiatives that focus on providing access, it would be beneficial to both kinds of projects.

VI. GLOBAL EXPERT RESOURCES

BACKGROUND

This section of the report addresses the global expert resources component of the project, with emphasis on the development and impact of the global trainer network, the Regional Health Advisors Program, the Regional Centre for Quality Health Care, and the Historically Black Colleges and Universities Initiative. The global expert resources component recognizes that as professionals advance in their career, they are likely to change jobs, work in a number of different institutions, and create new affiliations. One of the lessons TRH has learned from its own project experience is that to ensure or increase the likelihood of institutionalization and broad application of training competencies and approaches, the essential tools, information, and resources must follow trainers. Thus, the global trainer network and performance support service were established to enable faculty, trainers, and health institutions to be up to date on the latest contraceptive and RH technologies, provide mutual support and problem-solving assistance, and access global RH expertise.

The four activities related to the global expert resources objective are to:

- facilitate trainer mentoring and foster development of a cadre of professional trainers through PSS capacity to link trainers electronically,
- establish and strengthen the trainer network to improve the training of service providers,
- promote collaboration among developing countries by working with the most promising regional training institutions to introduce the latest contraceptive and RH technologies and provide technical assistance to the region; and
- support the capacity building of historically black colleges and universities (HBCUs) as they develop their management and technical capabilities to implement RH programs.

GLOBAL TRAINER NETWORK

The global trainer network is comprised of faculty trainers (from nursing, midwifery, and medical schools), inservice trainers, and other health professionals who have been trained to use JHPIEGO's mastery learning approach. The primary aim of the network is to link trainers together in order to facilitate efficient implementation of training, promote continued learning and professional development, and provide the support and follow up needed as they carry out their duties as trainers. This expanding group of trainers in the network is linked by traditional means (trainer-to-trainer connections) and increasingly by electronic means (TIMS database, ReproLine, TrainerNews newsletter, and ReproNet list serve). The level of qualification and geographic location of the more than 2,877 trainers in the network is represented in tables 4 and 5.

Table 4
Number of Trainers Developed
(October 21, 1993 to September 30, 2002)

Trainer Type	Candidate	Qualified
Clinical Trainers	1,824	518*
Advanced Trainers	106	118
Master Trainers	23	28
Classroom Faculty	212	
Clinical Instructors	48	

*Does not include advanced and master trainers, many of whom conduct training at the clinical level.

Table 5
Number of Trainers by Geographic Location

World Region	No. of Trainers
Africa	921
Asia and Near East	556
Europe and Eurasia	459
Latin American and the Caribbean	558
United States	29
Total	2,523

Most recent figure available; does not reflect September 30, 2002 update.

The TRH approach to institutionalizing training capacity relies heavily on large groups of clinical trainers (particularly for preservice education needs), fewer advanced trainers, and a smaller group of master trainers. In that respect, the distribution of trainers in the network is consistent with that approach. The data in table 4 show that the majority of trainers in the network are at the beginning stage of the trainer pathway, there are more candidates than qualified trainers, and there are more clinical trainers overall. As a result of recent data correction activities, everyone who has attended a clinical training/teaching skills activity is now categorized as a candidate clinical trainer, increasing that number more than fourfold from 310 in 2000 to 1,737 in 2001. However, in light of the human resource crisis in African countries and elsewhere, TRH is under considerable pressure to produce more trainers at a faster pace.

There are several factors that slow progress toward qualification. The practicum component requires candidates to conduct a training event under the observation and tutelage of a qualified trainer. Usually, no more than two candidates are qualified at a given time. Currently, there are only 28 master trainers to guide 1,824 clinical trainer candidates through the qualification process. As candidates progress to more advanced levels of qualification, the practicum one has to complete becomes increasingly rare at the country level; candidates may have to leave the country to complete the practicum requirement. In such cases, qualification can be a slow and expensive process—one that is more difficult to achieve in low-resource settings. In an effort to create a larger group of master trainers, JHPIEGO simplified the qualification criteria for that level. Some

trainers have achieved qualification at different levels through past experience or observed performance.

The relatively small number of qualified trainers in the network may reflect a data collection and management issue. TIMS is largely a paper system at the field level and dependent on the timely submission of trainer updates by master trainers. Second and third generation[34] courses that are not financed by TRH may not be reflected in the database at all. To help address this information gap, TRH has developed and is now administering a trainer survey to identify the location of trainers, courses that have been taken or delivered, challenges faced, areas of technical expertise, and technical assistance needs. The results of the survey may change the distribution of trainers in the database or increase the number of qualified trainers. Survey data would have more important uses, that is, to be an important resource in management decision-making, the data will help TRH management facilitate trainer networking and mentoring and inform the strategy for linking trainers in the network to the array of performance support tools.

It was noted in section V that the performance support tools developed by TRH are not used to maximum advantage by trainers in the field, and that the use and impact of these tools could be maximized by increasing the number of subscribers to TrainerNews, increasing the distribution of ReproLine CD–ROMs and ReproLearn tutorials, and making technical content more accessible to non-English speakers. These interventions will strengthen the knowledge and resource base of the trainers in the global network and by extension the colleagues and institutions with whom they interact.

REPRODUCTIVE HEALTH ADVISOR PROGRAM (RHA)

The Reproductive Health Advisor Program, funded by the Bill and Melinda Gates Institute for Population and Reproductive Health, is a degree program for midlevel health care professionals with training experience and leadership potential. Successful completion of the program leads to an M.P.H. from the Johns Hopkins Bloomberg School of Public Health. For the past seven years, JHPIEGO has supported the practicum component of the program. Upon completion of the M.P.H., the advisor is employed by the Clinical Services Division for the Learning and Performance Support Office, for their one-to-two year practicum experience.

JHPIEGO's investment in the program yields a pool of reproductive health experts that can serve the interests and needs of the global trainer network. Seven physicians are at various stages of the program. Four have completed all program requirements and are now in RH leadership positions in Indonesia, Côte d'Ivoire, and Nepal.[35] Three candidates are at different stages of their practicum. In the near future, the number of reproductive health advisors is likely to remain relatively small. However, more can be done to enhance their visibility and expertise. JHPIEGO would like to have more nurse-midwives in the program and broader geographic representation in the group of candidates. Reproductive health advisors could serve as a valuable technical resource to any formal mentoring program developed in the future. Possible uses of reproductive

[34] Courses offered by ministries of health, other health organizations (e.g., Umoyo Network in Malawi).
[35] Two RHA advisors are at the RH/MNH in Indonesia, one is at USAID/Côte d'Ivoire in the Population, Health and Nutrition Office, and one is the RH team leader in a Nepal health program.

health advisor expertise include establishing new regional networks and extending the level and type of support that can be made available to regional institutions (e.g., East, Central, and Southern Africa College of Nursing [ECASON], RCQHC) and trainers in the global network.

REGIONAL TRAINING INSTITUTIONS

Regional Centre for Quality Health Care (RCQHC)

Established in 1999, the Regional Centre for Quality Health Care (RCQHC) is based at Makerere University in Kampala, Uganda, and is affiliated with the Makerere University Institute of Public Health. RCQHC is staffed by leading African clinicians and trainers and is supported by a consortium of USAID–funded CAs, including JHPIEGO. The mission of the RCQHC is to provide leadership in building regional capacity to improve the quality of health care by promoting better practices through networking, strategic partnerships, and education and training. Key RCQHC program components that were developed in the service of that mission are the postgraduate diploma course in quality of health care, short courses covering a variety of health topics, and the provision of technical assistance.

JHPIEGO made a significant investment in the development of the RCQHC by seconding a reproductive health advisor to work full time with RCQHC for nearly three years. By virtue of that position, TRH provided technical and management assistance that was critical to the RCQHC in the developing phase. TRH contributions to the three main program areas of RCQHC are described below.

Graduate Diploma Course

The graduate diploma course is offered over the period of one academic year and attracts midlevel and senior managers from a number of health institutions in the East and South Asia region, primarily Uganda. The first graduate diploma course was launched in March 2001. Six participants were trained, and country mentors were identified and trained to provide ongoing support to graduates. TRH helped develop the RH modules of the graduate diploma course curriculum and facilitated the RH, innovative training and supervision modules of the course. RCQHC has institutionalized the use of anatomic models and technology-assisted teaching methods and learning materials, such as ModCal (IUD and CTS), ReproLine tutorials, and ReproLearn, as a result of TRH technical assistance.

Short Courses

In collaboration with a number of CAs, RCQHC conducted a series of short courses as part of its overall effort to increase commitment to quality and build capacity in the region to deliver quality health services. Some of the course offerings in 2001 were Facilitative Supervision, Better Practices in Maternal and Neonatal Health, Innovative Training, Performance Improvement, and Economic Evaluation.[36] TRH staff helped to develop and facilitate the short courses on innovative training and MNH and, in

[36] RCQHC partnered with the Population Council, JHPIEGO/MNH, EngenderHealth, and PRIME/ INTRAH.

collaboration with EngenderHealth, provided technical assistance in the development of the facilitative supervision course.

Technical Assistance

TRH effectively transferred RH knowledge and skills to RCQHC, evidenced by the fact that RCQHC now provides technical assistance in the delivery of echo courses in competency-based clinical training (e.g., Norplant, minilaparotomy, bilateral tubal ligation, and emergency obstetric care [EOC]), MNH updates, and supervision for performance and quality improvement). Technical assistance is provided directly to the ministries of health within the region to support the development of RH curricula and job aids (e.g., Norplant, minilaparotomy) and learning packages (EOC).

A TALC was established at RCQHC with TRH technical assistance and financial support. Centre staff, faculty, and students from the university reportedly use the TALC to develop teaching materials, conduct research, and stay current on RH knowledge and technologies. Data were not provided on the patterns or frequency of use of the TALC. RCQHC now has a local area network to support the TALC and other computer-based administrative functions. All RCQHC staff members are linked by e-mail and therefore are more accessible to members of the quality-of-care network and colleagues around the world. Other developments supported by TRH include the RCQHC web site, the RCQHC Quality Forum Newsletter,[37] and the MNH Job Aid Calendar.

TRH facilitated the link between RCQHC, JHU's school of public health, and the Bill and Melinda Gates Foundation that led to the joint sponsorship of the Strategic Leadership and Management for Population and Reproductive Health course held in Entebbe, Uganda (May 2001). The course was attended by 25 physicians and other health management professionals from government, academic, and private institutions. Based on the success of the pilot course, a regional leadership course has been planned for 2002. Sponsored learning and training events enable RCQHC to expand its outreach, recruit new members for the quality-of-care network, and promote its role as a technical leader in the quality of care.

TRH HISTORICALLY BLACK COLLEGES AND UNIVERSITIES TRAINING INITIATIVE

Background

In 1994, pursuant to the Gray Amendment and President Clinton's Executive Order 12876, USAID established the Historically Black Colleges and Universities (HBCU) initiative to expand the capability of HBCUs to provide technical assistance in the international health arena. The TRH HBCU initiative was established under the auspices of USAID, specifically to increase the number of staff available to provide technical assistance in reproductive health education and training in international settings, and to

[37] The RCQHC Quality Forum Newsletter and the MNH Job Aid Calendar (2001) are distributed to approximately 1,500 subscribers/providers. The newsletter contains updates on policy developments, technical resources, study findings, critical issues in RH, information about the GDC and other course offerings, study tours and activities sponsored by RCQHC and other regional centers. It is distributed to the 1,500 members of the quality-of-care network.

strengthen the administrative infrastructure and increase the capacity of HBCUs to procure and manage international contracts. Two collaborative partnerships were established in that regard. The formal partnership arrangement between TRH and the Morehouse School of Medicine (MSM) began in July 1994 and continued until January 1997. MSM had more of an institution-strengthening role when, in 1998, MSM consultants conducted needs assessments at the Charles R. Drew University of Medicine and Science (Drew) for the proposed JHPIEGO training program.[38] The partnership arrangement between TRH and Drew began in 1999 and is ongoing.[39] Since 1998, TRH has invested approximately $672,000 in the HBCU initiative.

The technical resources in reproductive health at both institutions were developed by training a core group of staff to provide technical assistance in FP/RH and by supporting the establishment of a consultant database to increase the pool of technical experts available to each institution. Conferences and symposia on reproductive health topics were convened to stimulate interest in international health issues among HBCU faculty, staff, and students. TRH devised a three-point strategy to build administrative and contractual management capacity and provided technical assistance and financial support that enabled MSM and Drew to

- develop and/or reorganize formal office structures according to identified needs,
- develop and implement strategic plans to guide the continued growth of sustainable international health programs, and
- revise the capability statement to more accurately describe their mission, goals, international experience, and key activities.

The results and main achievements that resulted from the combined efforts of TRH and the HBCU partner institutions are presented in the key findings section below.

Findings

The achievements of the TRH HBCU training initiative are reported in relation to the two main outcome objectives that shaped the partnership arrangements with MSM/Office of International Health Programs (OIHP) and Drew: increased capacity to provide FP/RH technical assistance, and increased capacity to manage and procure international contracts.

Increased Capacity to Provide FP/RH Technical Assistance

MSM/OIHP

It was envisioned that 10 core staff members at each HBCU would be trained and would progress through the trainer pathway. Due to schedule constraints that prohibited travel, only 5 of the 10 MSM staff recruited for the program completed the training—3 physicians and 2 nurses. The two focus areas for the training of trainers program were

[38] Interview
[39] A no-cost extension was signed in 2001.

reproductive health and infection control. MSM clinical trainers subsequently worked independently or in tandem with JHPIEGO training staff to provide technical assistance in a number of areas, including FP/RH training needs assessments, reproductive health updates, clinical training skills courses, and curriculum development courses. The primary venue for these activities was Uganda, although on occasion, training was conducted in Zimbabwe and Kenya. Although only 5 MSM/OIHP staff completed the TRH training program, over 130 MSM staff participated in workshops and seminars held in Baltimore and Atlanta between 1995 and 1998, thereby increasing the RH information and resource base institutionwide. In 1999, MSM completed the development of an African RH consultant database and provided database management training for staff of le Reseau de Recherche en Santé de la Reproducion en Afrique Francophone (RESAR) with funds secured from Support for Analysis and Research Project (SARA), thereby extending and broadening the FP/RH consultant pool.

Drew

TRH technical and financial support were instrumental in the founding of the International Health Institute (IHI) at Drew, which garnered faculty interest and participation in reproductive health programs. Currently, four Drew physicians and six nurse practitioners and/or nurse-midwives are being trained to provide international reproductive health education and technical assistance. By virtue of the training, Drew staff members have built expertise in reproductive health, infection prevention, IUD insertion, and family planning, and have served on TRH training teams in Jamaica, Peru, and Indonesia. Services rendered in the field included training needs assessment, contraceptive technology updates, and delivery of the clinical training skills course. More than 100 Drew faculty members from various departments have participated in RH/HIV workshops sponsored by the IHI. An international assistance database is currently being developed that will catalogue the language capacity, interest, and experience in international development, current projects, and degree status of all Drew faculty. The database will be used as a management tool by IHI to identify reproductive health training needs, to cultivate technical resources, and to market Drew technical expertise in future grants and bids for contracts.

Technical Assistance Contracts and Activities

MSM and Drew have both successfully negotiated contracts, as the prime contractor or subcontractor, with a number of international organizations and donor agencies. An illustrative list of grants and contract awards is presented below.

MSM/OIHP

- Coordinated health components of the fourth (1995) and sixth (1997) African-American summits, in Ghana and Zimbabwe, respectively.

- Negotiated a contract with the World Health Organization (WHO) to conduct a series of seminars on maternal and child health and HIV/AIDS at WHO's Center for Health Development in Kobe, Japan in 1998.

- Negotiated a five-year contract with Bristol-Myers Squibb to conduct seminars and faculty exchanges in the area of HIV/AIDS with Medunsa University's School of Public Health in South Africa (1998–2003).

- Provided technical assistance in cervical cancer screening to the Seventh Day Adventists Church in Kenya (1999).

- Negotiated a contract with the Centers for Disease Control and Prevention (CDC) to provide technical assistance in HIV/AIDS prevention and service delivery in a number of African countries, including Zambia (2001).

- In partnership with WHO, MSM currently provides technical assistance to the Ministry of Health, Zambia, to improve the quality of and access to health care services.

Drew

- Awarded a two-year USAID contract to provide technical assistance in HIV/AIDS in Angola (2001).

- Conducted needs assessments and infection prevention training in Indonesia and reproductive health updates, clinical training skills, and instructional design courses in Peru and Jamaica (TRH 2002).

- Awarded grant by the Bill and Melinda Gates Foundation to conduct cervical cancer screenings in Guatemala.

- Conducted a 2–week training of trainers course in Nicaragua, under contract with INTRAH/PRIME in 2002.

- Scheduled to host an international HIV/AIDS conference in collaboration with UCLA (October 2002).

- Projects in development:

    - Establish a reproductive nurse training program in collaboration with Drew's Department of Obstetrics and Gynecology to increase technical assistance to the state of Imo, Nigeria

    - Establish cervical cancer and prevention program in Guatemala with Drew's Department of Pathology

Both MSM and Drew share the view that their success in negotiating international contracts is partially attributable to the partnership with TRH. Their achievements are seen as the product of long-term institutional efforts to build technical expertise and strategic alliances in the international health domain. Those efforts have been augmented by the affiliation with TRH and the HBCU initiative.

Issues

Global Trainer Network

Additional trainers with FP/RH expertise are needed to fill human resource gaps and to respond to critical FP/RH needs and priorities in low-resource settings. The global network of trainers plays a vital role in the institutionalization of training capacity and systems strengthening. Trainers serve a bridging function for the project, linking TRH to ministries, credentialing bodies, health institutions, and providers. TRH has invested a substantial amount of resources toward the development of a global network of trainers with FP/RH expertise. Trainers in the network are deemed competent and are in high demand by the programs and institutions they serve. Of the 2,523 trainers that constitute the global network, the majority are in Africa (921); the remainder are fairly evenly dispersed across Asia and the Near East (556), Latin America and the Caribbean (558), and Europe and Eurasia (459). Twenty-nine trainers in the network reside in the United States.

HBCUs

From the vantage point of the HBCUs, there are few opportunities to use and/or market newly acquired skills. HBCU RH expertise and training resources are still largely untapped in the international health domain. HBCU capacity in international health is not as well known and is not as highly regarded as that of their CA counterparts. Academic institutions function quite differently from CAs, whose efforts are more geared toward winning, executing, and evaluating contracts, and then repeating this cycle. HBCUs may have less information at their disposal about program/funding priorities of donor agencies and grant-making organizations, therefore making them less able to respond to contract opportunities.

HBCU clinical trainers function in the context of an academic institution and for the most part are bound by the academic calendar. Therefore, HBCU consultants are not in the position to respond to short-term (2–3 week lead time) requests to provide technical assistance overseas.[40] Faculty must negotiate their availability with their department chair. That negotiation is complicated by the fact that most clinical trainers have another primary scope of work and no technical support to ensure coverage. Attrition of trained staff is also an issue.[41]

Drew's IHI needs strengthening. It is not recognized as an official structure by Drew's administration, it does not appear as a budget line item, and therefore it does not receive funding from the university. IHI's existence is largely dependent on grants, yet there is no resident grant writing expertise or resources. As is the case with IHI (and MSM initially), most newly established HBCU international health programs are likely to be understaffed with limited resources available to support the development of the program during the critical start-up phase.

[40] This was the average lead time for initial consulting opportunities presented to MSM.
[41] Two of the five trainers at MSM have since left the institution.

Recommendations

In the interest of expanding and strengthening the global trainer network, JHPIEGO should consider the following recommendations.

Prepare more training candidates and qualified trainers. Reevaluate the phased approach to training, in which phase 2 or the second round of the training follows the completion of round 1. Explore ways to reduce the interval of time between rounds of training. Perhaps one option might be to launch the second round immediately after lessons learned have been gleaned from the pilot training in the first round.

Use TIMS more efficiently to track the location and activities of trainers in the network. The data produced by TIMS and the trainer survey now being administered should be given back to trainers so that they can make more strategic use of the expertise that resides within the network. Gather data from TRH program directors on what information is most critical to the program and strategies for data collection.

- Solicit data from the field on the challenges faced moving trainers along the FTD pathway (e.g., difficulties arranging practice experiences for master trainers due to a lack of advanced training skills [ATS] candidates). Identify regional resources to assist with problem solving.

- Expand the network to include cadres at lower levels (e.g., CHPS in Ghana) and trainers from the private sector.

- Include in the trainer network experts developed by the RHA program and the RCQHC.

- Develop and/or formalize a mentoring strategy that employs reproductive health advisor expertise and matches trainer needs with skills in the network.

- Develop a clear strategy in collaboration with regional institutions (i.e., RCQHC) to promote collaboration among developing countries.

To strengthen HBCUs, JHPIEGO should consider the following recommendations.

Link HBCUs to the global trainer network. Include HBCU clinical trainers in the database. Incorporate HBCU technical products/publications/resources into ReproLine tutorials, CD–ROMs, and TrainerNews. Add HBCU clinical trainers to the database.

Build MSM capacity to function as a technical assistance institution in developing the training capacity of Drew and other HBCUs.

In collaboration with HBCUs, develop a strategy to increase visibility and marketability. Convene annual conferences (e.g., International Reproductive Health: Challenges, Priorities, and Opportunities for HBCUs) to refresh skills, foster networking among HBCUs, and raise visibility among donors and CAs. Consider supporting the development of an HBCU consortium.

P**rovide technical assistance to HBCUs to increase the capacity to write competitive bids** (e.g., grant writing workshop or consultation). As appropriate, enter into prime/subcontractor arrangement with HBCUs on future bids or invite HBCU staff to join the proposal-writing team.

Contract with HBCUs to provide international technical assistance 3–6 months before implementation to allow time to negotiate the academic calendar.

VII. PROJECT MANAGEMENT

BACKGROUND

This section discusses the role of JHPIEGO's management of the TRH award and its component activities. TRH activities in support of strengthened management of host country and HBCU organizations are discussed in other sections. TRH management is examined in three broad categories: technical, administrative, and financial. The focus is on key points illustrative of JHPIEGO's evolving management style as reflected in TRH activities, its successes, and possible problem areas deserving further attention.

TECHNICAL MANAGEMENT

"JHPIEGO in the year 2002 is an entirely different organization than it was 10 years ago."[42] This statement summarizes field reports from numerous sources, including JHPIEGO itself. While the metamorphosis is still not complete, major changes have occurred in the following areas:

- JHPIEGO's technical assistance approach, from one which was based in the United States to one which is much more field-oriented and more sensitive to host country concerns;

- both the depth and breadth of technical focus areas and technical competence;

- JHPIEGO's willingness and ability to successfully seek out partnerships with other organizations; and

- TRH leadership and management style.

The principal before-and-after comparisons in organizational approach are summarized below. While these changes do not address any specific IR, they are nevertheless important accomplishments worthy of note.

- JHPIEGO used to focus primarily on physician training. It now focuses also on nurses and nurse-midwives and is beginning to focus on lower level personnel in the health systems (e.g. enrolled nurses).

- The bulk of the technical assistance had been provided directly from Baltimore. It now has country and regional technical staff that provides onsite technical assistance and makes good use of its network of international advisors.

- JHPIEGO used to prepare subproject activities in Baltimore and carry them out to the concerned country. Now, subprojects are formulated in the field in collaboration with host country institutions.

[42] Interview with USAID field person who has worked with JHPIEGO for more than 10 years.

- It used to be "difficult to partner with" JHPIEGO (according to numerous sources). Now, JHPIEGO is much more adept at seeking partners and collaborating in joint activities.

- In the past, JHPIEGO focused primarily on inservice training. It now focuses on both inservice and preservice training, as well as continuing education for health professionals.

- JHPIEGO used to focus primarily on reproductive health training. Its activities now include a broader range of health interventions, including maternal and child health, HIV/AIDS, policy, and monitoring and evaluation systems.

Observations in the field and interviews with USAID and Mission personnel tend to substantiate these changes as real, continuing, and important as they help to reinforce a technical assistance approach favored by USAID. It also provides the Missions and host country institutions with a broader base of assistance.

TRH efforts to broaden the scope of its activities and to work more collaboratively with host country institutions have both positive and potentially negative consequences. On the positive side, TRH is able to respond more flexibly to USAID and host country demands for technical assistance. On the negative side, such efforts risk losing focus on FP/RH activities. Whatever the benefits of a broader focus, it is hard to imagine any activity that can have a greater positive short-term effect on maternal and child mortality than FP/RH. PAC interventions, in particular, can have a dramatic impact with relatively little investment. At the country level, positioning oneself to be a purveyor of good health technical assistance in all areas can risk losing focus and lessening overall impact.[43]

TRH has adopted a systems approach, that is, an analysis of factors that facilitate or inhibit the success of its training activities. It has, for example, incorporated policy-oriented activities and certain monitoring and evaluation activities in its systems approach.[44] Although this is a positive beginning, additional efforts are needed. First, TRH has a limited mandate and very little control over the many components in the overall health service delivery system in any given country. Second, TRH's scope with regard to the training of personnel within the health system is generally limited to those physicians, nurses, and nurse-midwives working at the district level or above. It does not extend to personnel below that level who mainly deliver the bulk of FP/RH services in many countries. With few if any exceptions, TRH has not had the resources to extend its successes to cover an entire country.[45] In some instances, such as Zambia, very little is needed to expand the impact of TRH's impressive PAC successes at the national level.[46]

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[43] In Malawi, it would seem that this risk is particularly great, as TRH is essentially functioning as a secretariat for the MOHP. Under such circumstances, it is hard to retain focus.

[44] TIMS, PAC database, Electronic Nursing Registry, and preliminary HR tracking in Malawi.

[45] Turkey is an example of where sufficient expansion has been achieved in preservice medical education that it may conceivably be extended throughout the country; nursing preservice education efforts have not quite reached that level of expansion.

[46] TRH's Zambia program consists mainly of PAC and improved performance services. A plan exists to extend PAC/improved performance services to the entire country—100 district hospitals—within a five-year period. The cost is only $175,000 per year, yet funds do not seem to be available for this purpose.

TRH is to be commended for attempting to take a systems approach, but it must be recognized that even this approach is piecemeal; JHPIEGO alone cannot solve this problem.

TRH is basically a training program in FP/RH for certain (higher) levels of health personnel. Arguably, in any given country, TRH could work perfectly in terms of institutionalizing a sustainable capacity to train physicians and nurses/midwives in FP/RH and still have a near zero impact on service delivery outcomes. Even successes in establishing a favorable policy environment do not ipso facto guarantee improved FP/RH service delivery outcomes.

Effective and efficient service delivery at the national level requires, at a minimum, the following 10 criteria:

- a favorable policy environment,
- a functioning budget system and available budget,
- trained and motivated personnel available on site,
- a supervisory system in place and functioning,
- service delivery facilities open and functioning,
- equipment and supplies on hand, including contraceptives (i.e., a functioning logistics system),
- IEC components, including provider and client materials,
- at least a rudimentary monitoring and evaluation system for program management and planning,
- clients, and
- an outreach system to bring in and follow up on clients.

For all its good intentions and efforts, TRH can only be expected to have an impact on a few of these. Other CAs and donors may be working on some of these components in some places and at some times. However, without an overall coordinated approach that brings to bear adequate technical and material/financial resources over a sustained period, the real world benefits of TRH activities can be expected to be attenuated, severely so in resource-constrained countries, such as Malawi and Zambia.

Recommendations

For TRH

- Refocus efforts on FP/RH. PAC, for example, is a good area to emphasize further, particularly expansion and monitoring. Examine ways to strengthen

FP/RH components of all activities, even when drawn into new program areas, such as HIV/AIDS.

- Continue to pursue a systems approach and broaden it to include other important components of service delivery. Attempt to forge closer strategic relationships with service-delivery organizations that can provide the necessary monitoring on actual performance of trained personnel in the workplace.

- Continue to develop and use monitoring systems to validate training approaches and outcomes. Place more emphasis on monitoring and less on evaluation.

- In line with its decentralization goals, TRH should attempt to assure that its product development efforts are strategic and driven principally by field needs. In particular, the PAC database and ENR in Malawi need review for their possible broader applicability in other countries. Similarly, the design and use of TIMS needs review, as noted elsewhere in this report.

For USAID

- Consider programmatic and contractual ways to make the critical links between FP/RH service delivery and necessary components, such as training, policy, logistics, equipment, contraceptives, transport, and financing.

- Consider broader use of core funding for program/project planning and startup, especially PAC. Core funds can sometimes be critical in filling the gap before FS/MAARD and/or bilateral funds can be made available.

ADMINISTRATIVE AND PERSONNEL MANAGEMENT

For the first two years of this award period, TRH was led by JHPIEGO's president; there was no separate TRH director. Several persons have reported that during this early period the project was constrained by not having a full-time director. Two years ago, this problem was rectified when a director for TRH was assigned. His enthusiasm, knowledge, experience, and work style seem to have had a positive influence on the project, including moving it more rapidly toward the new style of management characterized in the previous section. The recent appointment of a senior manager as JHPIEGO's CEO has further strengthened the management team and promises to continue JHPIEGO's transformation in management style. The fact that the CEO is a nurse is also seen as a significant departure for JHPIEGO, signaling its new broader, deeper mandate. The new CEO's vision for JHPIEGO is one of an organization that seeks and maintains a wide range of mutually productive relationships and partnerships with other organizations active in international health, including USAID's CAs and contractors. The CEO reports that the headquarters staff agrees with this vision, and considerable evidence was found to support this.

JHPIEGO has always sought to provide a very high level of technical expertise, and it has achieved this aim very well. JHPIEGO headquarters staff and field staff members are of a very high professional caliber. All staff members are enthusiastic about their work.

Both headquarters and field staffs work very hard and many hours to shape and perfect their products. Written products are generally superbly crafted and of very high quality. It is evident that the TRH senior staff functions as a team of experienced professionals who are deeply involved, knowledgeable, and interested in the effectiveness of their work. This perception carries through to the USAID field Missions and to the host country organizations with which they work. JHPIEGO's university affiliation is a definite asset in terms of its ability to work with host country leaders, gain their respect and trust, and influence RH policy.

Organizationally, JHPIEGO has moved to decentralizing many of its functions, particularly those pertaining to country-level assistance. JHPIEGO country representatives are located in 16 countries[47] and manage the overall technical assistance provided. They provide direct assistance to host country institutions and interface with USAID, other CAs, and the larger donor community. In some situations (e.g., JSI's Zambia Integrated Health Project [ZIHP/JSI]), they appear to be well integrated with other CAs and are managing both TRH and other JHPIEGO programs.

JHPIEGO maintains three regional offices located in Baltimore (Africa, Asia/Near East, Latin America and the Caribbean) that provide specialized technical support to country programs on demand. Such assistance was actually being used and was deemed quite valuable both by JHPIEGO country representatives and host country entities (e.g., a programmer from the Kenya office assisted the Malawi office in developing two simple but very effective database systems used for tracking PAC results and nursing personnel in Malawi). On occasion, technical assistance is also provided directly from Baltimore (e.g., assistance was provided to Malawi by an information technology systems specialist in evaluating options for a human capacity database system). This represents an effective means of providing such specialized assistance, since it would be unlikely that the needed skills could be found, assured, and/or afforded in individual country offices. Country and headquarters personnel are used for other technical areas as well, especially for research and evaluation purposes.

JHPIEGO's approach to administrative and personnel management under the TRH award is sensible and effective. With few exceptions (which are discussed in the following section, Missions and host country institutions reported satisfaction with JHPIEGO/ TRH's management style, personnel, and administration. Excellence is the hallmark of JHPIEGO assistance, and seems generally to be appreciated as such by field Missions and host country clients. In a few cases, however, there appears to be a tendency on the part of Missions to equate excellence with high cost. Dissuading these few Missions may be difficult and, in the end, not worth the effort, although TRH should be alert to opportunities to do so.

Recommendation

JHPIEGO/TRH should continue to strive for excellence in its personnel, products, and assistance. Whenever the opportunity arises, TRH should stress the **results** of its approach in relation to the costs involved.

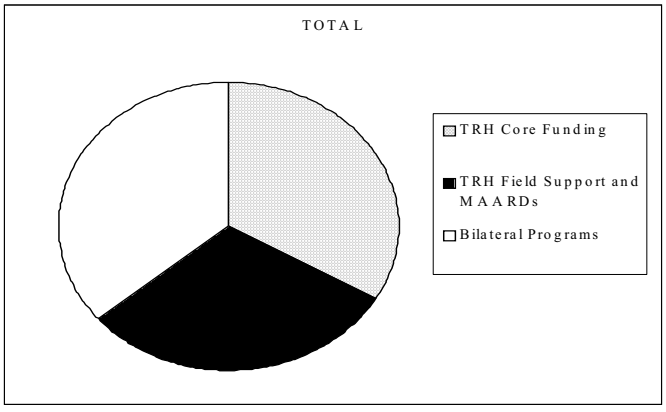
[47] Burkina Faso, Cameroon, Ghana, Kenya, Malawi, Togo, Uganda, Zambia, Georgia, Indonesia, Nepal, Turkey, Ukraine, Bolivia, Guatemala, and Peru.

FINANCIAL MANAGEMENT

The TRH award provided for a funding level of up to $80 million over the four-year period 1998–2002. This included both core and FS/MAARD funding. Nearing the close of FY 2002, it appeared that total funding would be near the $50 million level (including about $25 million in core funding and $21 million in FS/MAARD), or an average of $10 million per year.

USAID/Washington and JHPIEGO have expressed disappointment that the FS/MAARD funding was not as high as anticipated. (Other CAs have apparently experienced the same disappointment). Whether or not this represents a declining interest in the CAs on the part of USAID field Missions is under debate; there is no clear evidence to argue this. However, it is clear that in some sense TRH may no longer be needed in some countries both because it has achieved a sufficient level of indigenous capacity to provide clinical training and because Missions are increasingly turning to bilateral projects to provide some of the same type of support that TRH has been providing. It seems that in a number of cases, JHPIEGO itself is contracted under prime or subcontract bilateral mechanisms to carry out similar activities. JHPIEGO bilateral funding to date for these types of activities has reached $33 million, including $29 million to support Family Health and AIDS/West Africa Regional Program, countries. In addition, TRH products and approaches have been adapted and adopted by a number of other CAs and donors. Figure 5 summarizes core, FS/MAARD, and bilateral funding for these types of activities as of September 2002. Table 6 shows a breakdown by country and includes expenditures to date.

Figure 5
Funding of TRH and Bilateral Programs



TRH and Bilateral Funds Comparison	TOTAL
TRH Core Funding	$22,446,841
TRH Field Support and MAARDs	$20,756,207
Bilateral Programs	$24,367,702

Table 6
Comparison of TRH Core and Field Support with JHPIEGO Bilateral Funding and Expenditures

September 30, 1998 to August 31, 2002

|<----------Bilateral Projects Only---------->|

Country	TRH Core Funding	TRH FS/ MAARDs	Total TRH Funding	*TRH Cumulative Expenditure*	JHPIEGO Bilateral Funding	Bilateral Expenditure	*FY 03 Funding Projections*
Indonesia	227,031	1,527,572	1,754,603	***1,754,603***	2,181,917	2,464,850	*4,695,753*
Nepal	0	2,383,017	2,383,017	***2,371,523***	96,588	20,798	*265,723*
CEN Regional (incl. Tajikistan, Uzbekistan)	32,182	108,137	140,319	***140,319***	0	0	*550,000*
Moldova	21,462	0	21,462	***21,462***	0	0	*0*
Russia	6,464	67,100	73,564	***73,564***	0	0	*0*
Turkey	1,181,165	568,692	1,749,857	***1,749,857***	0	0	*0*
Ukraine	0	987,477	987,477	***961,565***	0	0	*550,000*
Georgia	0	437,500	437,500	***360,342***	0	0	*0*
Guinea	0	25,000	25,000	***0***	0	0	*0*
Kenya	248,209	832,684	1,080,893	***1,074,845***	250,000	250,000	*0*
Malawi	0	3,906,945	3,906,945	***3,101,479***	0	0	*0*
REDSO ESA	0	1,761,646	1,761,646	***1,473,975***	0	0	*0*
South Africa	0	500,000	500,000	***0***	0	0	*0*
Uganda	624,352	287,687	912,039	***838,579***	536,884	450,695	*353,081*
Zambia	350,000	492,999	842,999	***503,082***	0	0	*0*
Zimbabwe	128,894	376,457	505,351	***505,351***	0	0	*0*
Côte d'Ivoire	0	250,000	250,000	***154,729***	0	0	*0*
Ghana	0	2,639,047	2,639,047	***1,441,913***	0	0	*0*

Country	TRH Core Funding	TRH FS/ MAARDs	Total TRH Funding	*TRH Cumulative Expenditure*	JHPIEGO Bilateral Funding	Bilateral Expenditure	*FY 03 Funding Projections*
Haiti	150,000	760,000	910,000	***658,081***	0	0	*0*
Morocco	1,159	36,841	38,000	***38,000***	0	0	*0*
Senegal	0	246,335	246,335	***193,209***	0	0	*0*
Bolivia	38,090	890,924	929,014	***929,671***	0	0	*0*
Brazil	299,182	232,851	532,033	***532,033***	0	0	*0*
Ecuador	19,766	354,339	374,105	***374,527***	0	0	*0*
Guatemala	114,809	365,859	480,668	***478,031***	280,000	204,596	*178,577*
Jamaica	0	458,516	458,516	***415,734***	281,428	190,139	*99,000*
Peru	9,985	646,886	656,871	***656,871***	0	0	*0*
TRH Field (HBCU - AFR)	0	100,000	100,000	***0***	0	0	*0*
West Africa Regional (SFPS countries)	1,372,044	0	1,372,044	***975,090***	29,404,903	26,709,687	*0*
West Africa Regional (SARA)	0	0	0	***0***	131,000	145,390	*139,146*
Benin	0	0	0	***0***	0	5,961	*211,635*
Subtotal Country Funding	**4,824,794**	**21,244,511**	**26,069,305**	***21,778,435***	**33,162,720**	**30,442,116**	**7,042,915**
General (Core) Programs	**19,928,997**	**0**	**19,928,997**	***12,595,184***			
TOTAL	**24,753,791**	**21,244,511**	**45,998,302**	***34,373,619***	**33,162,720**	**30,442,116**	**7,042,915**

Source: JHPIEGO

- Systems used for accounting and reporting
- Problem areas and challenges (cf. Bolivia, declining FS)

In general, core funds have been used to support headquarters operations, research, and PAC service startups. As can be seen, FS/MAARD funds have been provided for 26 of the 27 country and regional programs, evidencing substantial interest on the part of the field Missions and regional bureaus. In addition, bilateral programs involving activities similar to TRH activities are underway in nine countries. As of mid–October 2002, JHPIEGO has just won several additional awards under bilateral programs.

JHPIEGO/TRH has been constrained in the use of core funds to fund startups other than PAC. GH/PRH should consider the use of core funding for such purposes, both to launch programs while awaiting bilateral or FS/MAARD funding and to perhaps help convince the Missions of the need for and the importance of preservice training.

Reporting on Budgets and Expenditures

Overall, there were few complaints regarding TRH's management of funds, with one exception: its apparent inability to provide timely data on expenditures and unexpended obligations. JHPIEGO is tied to the university accounting system (e.g., salaries are paid through the JHU accounting and financial system). Expenditure data are coded according to the university's procedures and timetable, often resulting in lengthy processing times and not infrequently, erroneous or misleading information. This is a common problem experienced by university-related organizations. However, this places JHPIEGO at a relative disadvantage when trying to satisfy client needs for current financial information needed for planning, tracking, allocation, budgeting, and reporting purposes. Additionally, the system constrains JHPIEGO to report most costs which are not direct in-country costs as indirect costs, while some other CAs tend to report some of these indirect costs as country project costs. This gives the appearance that JHPIEGO's costs are high because of the ratio of its in-country to indirect costs. One Mission came to the conclusion that JHPIEGO's in-country costs actually compared favorably with those of other CAs.

JHPIEGO is acutely aware of these problems, and reports that it is actively seeking a solution. The evaluation team is aware of at least one instance in which a university-affiliated organization—faced with similar problems—has adopted a shadow accounting system that tries to keep accurate record of expenditures and unexpended obligations in a form useful to USAID. JHPIEGO may conclude that such an option is needed.

Recommendation

JHPIEGO should move quickly to decide on a solution that can provide the needed financial data in a form that is as accurate and as timely as possible.

VIII. CONCLUSIONS

JHPIEGO is complying with the letter and spirit of the TRH cooperative agreement. The project has exceeded the target indicators in key program areas, specifically strengthening preservice education and inservice training, and institutionalizing host country capacity to review, revise, and update family planning and reproductive health service delivery guidelines. JHPIEGO has effectively shifted its program orientation from training to performance improvement and support. This shift in focus has resulted in a more field-based approach to project management, increased emphasis on partnerships and stakeholder engagement, and incorporation of a broader range of program interventions (e.g., supervision systems, HIV/AIDS, policy advocacy, workforce development, quality assurance) that have a direct bearing on training systems strengthening.

JHPIEGO has been particularly effective in

- establishing a structured trainer development process and implementing the competency-based approach to training,
- creating and disseminating standardized training packages and materials,
- introducing FP/RH curricular components into national training programs,
- advocating for policy change to expand the role of nurse-midwives and clinical officers,
- developing a range of performance support tools, and
- using the performance improvement approach to institutionalize infection prevention practices and programs.

The impact of TRH interventions on provider *and* client behavior is exceedingly clear in some cases. The coupling of PAC and infection prevention has reduced maternal mortality and measurably increased acceptance of modern family planning methods. There is substantial evidence that many of the approaches, products, and tools developed by TRH have been adopted by bilateral programs and other organizations.[48]

TRH has experienced moderate success with the development of training information and monitoring systems. To date, there is no clear system in place to collect and analyze data from decentralized databases. Additional focus on the use of service-level data to guide and inform the direction of curriculum development, training, support supervision, and policy is warranted. Increased emphasis should be placed on building effective monitoring systems rather than on time and cost-intensive program evaluations. With regard to technology-based learning approaches, future investments should be focused on increasing access to content rather than access to technology. TRH should intensify its efforts to market and expand effective programs including, but not limited to, preservice strengthening, PAC, and infection prevention.

[48] See appendix K for a listing of selected products and tools adopted by other projects and organizations.

It has become increasingly important for JHPIEGO and other CAs to form strategic alliances and work in partnership with other organizations that function at different levels of the service delivery system to address critical issues related to the attrition of experienced health care providers, decentralization, static or reduced budgets, and the impact of the AIDS pandemic. These systemic issues, if unaddressed, will compromise JHPIEGO's ability to affect the significant program gains made over time.

IX. STRATEGIC DIRECTIONS AND IMPLICATIONS FOR FUTURE PROGRAMMING

Observations and recommendations on future directions are divided into general considerations and training-specific observations, and the future focus of technical assistance in family planning.

GENERAL CONSIDERATIONS AND TRAINING–SPECIFIC OBSERVATIONS

USAID is presently undergoing a major effort to restructure its procurements under the newly titled Service Delivery Improvement Division (SDI), formerly the Family Planning Services Division (FPSD). Training is just one component of several being examined for possible restructuring. Of concern are issues of manageability, cost, and effectiveness. In addition, GH managers are concerned with issues of technical leadership and relevancy (as seen by the field Missions) in an era where it seems that the central projects are being underutilized as Missions move toward using broad-scale, bilateral projects.

For future work, it is essential for USAID to consider the following environmental factors.

- The CAs (and contractors) represent very nearly the entire body of technical expertise and experience that USAID has to offer in RH, FP, and other critical program areas. This expertise has been established over a 30–year period and is unparalleled in the international public health area. This body of expertise is **not** being used as effectively as it might be due to some of the reasons cited below.

- USAID reengineering and decentralization has moved key technical, contractual, and procedural implementation to the field Missions; in the judgment of many, this has eroded the value and relevancy of the central bureau, its CAs, and its projects.

- Due to severe personnel and budgetary constraints, the field Missions—with few exceptions—have been left understaffed in terms of experienced, qualified technical personnel; further, even when present and qualified, technical personnel are unable to spend much time on relevant technical issues.

- As the field support system has been implemented, it has tended to put CAs in competition with one another for business with the field Missions.

- For their part, the field Missions, because of acute personnel constraints and a very heavy bureaucratic systems load, have sought ways to reduce their management load, often by opting for flagship bilateral projects in lieu of multiple CAs.

- The post-Cairo emphasis on integration has led to a tendency to integrate HIV/AIDS/FP/RH and other components of family health. Predictably, this

has often led to a dilution and diminution of effort in FP/RH, as well as supporting the Mission-favored flagship approach.

- As a result of the above factors, the quality of country-level strategic planning and project/program development has suffered enormously. By extension, it can be concluded that the effectiveness of programs in the field has suffered as well.

The practical result of the above influences can be seen in field programs that often are composed of short-lived, fragmented efforts with little lasting impact. This has been noted by observer after observer and evaluation after evaluation. Critical linkages generally are not made between essential components of overall service delivery systems (training, logistics, supplies and equipment, contraceptives, transport, supervision, monitoring, policy, IEC). For example, trained personnel are unable to use their training effectively in the workplace because of service delivery system deficiencies unrelated to their own technical competency. Such failure has been interpreted (erroneously in the evaluation team's belief), to imply that the generalist contract approach should be used in the future.

Technical excellence is a product of specialization, not generalization. This is not to say that vertical programs or approaches are necessarily indicated. Rather, it is to suggest that the future should include the adoption of a systems approach wherein the individual components of complex systems—such as FP/RH service delivery systems—are identified, realistic strategies are developed leading to realistic interventions, and necessary technical assistance is provided by **component specialists working together in the same geographic area at the same time to achieve strategically determined results**. The mix of talent required, in each instance, depends on the specific circumstances of the intervention effort future programs need to employ for flexible mechanisms to ensure delivery of a variety of high-quality technical assistance. n overall approach is not the answer, and in the end is likely to be very wasteful of scarce resources.

The USAID general view should encompass the **numerous small-scale USAID–led successes** that have never been expanded sufficiently to have countrywide impact. USAID CAs, contractors, and field Missions have worked together for many years in good faith to provide high-quality technical assistance efforts in FP/RH in numerous countries in all regions. Some of these efforts have resulted in large-scale successes; Indonesia, Thailand, Bangladesh, Turkey, Morocco, Mexico and Colombia are some examples. However, many other smaller scale successes have not been turned into countrywide successes.[49] Some of these represent golden opportunities to refocus efforts to achieve lasting, large-scale results.

GH/PRH should consider the overall work to be done (i.e., the unmet needs for FP/RH both now and in the near future). It should not be surprising to note that in many countries around the world, most particularly in Sub-Saharan Africa, the basic

[49] A current example is JHPIEGO's excellent infection prevention and PAC effort in Zambia, involving five referral hospitals. A plan supported by the Central Board of Health exists to extend this program to the whole country—100 district hospitals, at a very modest cost of about $150,000 a year over a five-year period, but sufficient funding is lacking.

building blocks of effective FP/RH service delivery are still not in place. Planning capacity is weak and delivery systems are severely strained by personnel shortages, insufficient skills, weak logistics systems, shortages of key equipment and supplies (including contraceptives), poor supervisory and monitoring systems and financial crises. Such problems often are further compounded by high HIV incidence and prevalence, and by the departure of trained personnel to the private sector, often in Europe or North America. While some countries approached sustainable indigenous capacity to provide a reasonable level of FP/RH services, much of the rest of the world is still struggling with the elementals. USAID needs to focus on these countries and their basic but urgent needs and not be diverted by innovative, technological, or integrated approaches that are not the primary concerns.

The principal overall challenge to USAID, then, is to find an effective way to join its pool of high-quality technical expertise (represented by its CAs and contractors) with the needs in the field for better strategic planning, better project formulation, better targeted and coordinated implementation, and more controllable management units. In so doing, SDI needs to be wary of programming changes that would tend to blunt its specialized technical assistance instruments (i.e., the CAs and contractors), making them similar to the flagship project and perhaps even less relevant to the needs of the Missions.[50]

FUTURE FOCUS OF TECHNICAL ASSISTANCE IN FAMILY PLANNING

Service Delivery

The future of technical assistance in family planning should have as a main feature the strengthening and expansion of successful family planning programs as part of a comprehensive effort to reduce maternal mortality and improve reproductive health. Ensuring client access to care, at all levels of the system, will continue to be a priority. [51] USAID should consider using core funds for pilot programs that will link family planning with other health interventions, thereby increasing the focus on FP. For example, Ghana Health Services currently has as a priority the development of a 10–pronged approach to reduce malnutrition and its sequelae. Family planning services could be reinvigorated by linking them to the malnutrition program (e.g., promoting breastfeeding during the first 6 months, promoting the use of long-term methods as part of a coordinated package to improve nutritional status of women prior to beginning a subsequent pregnancy, and coupling FP methods with micronutrient program interventions).

Training for Service Delivery

USAID programs should be designed with service delivery as the focal point, around which other essential services would be arrayed. Training content should be informed by service-level data and provider and client feedback. The integration and linkage of program components should be field and data driven.

[50] It might be instructive to consider, for example, the field interest in the Advance Africa and Catalyst projects, and to examine trends in FS/MAARD and bilateral use of existing CAs/contracts in recent years.

[51] Future contracts should have built-in incentives to extend staff efforts for increasing access to family planning and reproductive health services, such as evening and weekend hours for service delivery, using creative incentives for start up.

Preservice education should be viewed as a long-term investment and a cost-saving intervention that serves to institutionalize FP/RH capacity. Organizations that focus on the preservice education of nurses and midwives should collaborate with other professional nursing associations, not only to access a specialized body of knowledge but also to facilitate professional development and to advance the state-of-the-art of the profession. Continuing education should bridge training and supervisory interventions and should take into account particular training needs or performance issues of providers. For example, counseling skills and client/provider interaction is an area that warrants further attention.

Immediate Action Items

Country visits during this evaluation and discussions with Missions indicate a pattern of decreasing use of IUDs. Population Council studies that are investigating the status of contraceptive method acceptance and utilization patterns should be reviewed to determine the reasons for the decreased popularity of the IUD. Study findings should be the basis for developing a strategy to promote long-term methods and informed contraceptive choice.

USAID should create an innovative postpartum initiative, similar to PAC, to increase family planning access and utilization to promote birth intervals of at least three years. The postpartum link should be used to follow up on family planning counseling that was made during the clients' attendance at the antenatal clinic. The use of 1 and/or 2–week postpartum visits to counsel and initiate family planning methods use that does not interfere with optimal breastfeeding should be encouraged. A pilot test for the provision of postpartum IUD should be implemented following analysis from a feasibility study. The postpartum initiative should be designed with a focus on improving health outcomes for the woman and improving infant health growth and development outcomes.

HIV and AIDS

Cooperating agencies are increasingly following HIV/AIDS streams of funding, which has had a role in the decreased emphasis on FP/RH and the proliferation of ad hoc activities and programs. Training programs in family planning and reproductive health should incorporate family planning as an HIV/AIDS intervention, and other prevention topics (i.e., risk reduction, reduction of mother-to-child transmission, reduction in accidental exposure to blood-borne organisms, and HIV voluntary counseling and testing). Community-based training organizations should collaborate with providers of home-based care and support services to address the issues discussed above. Family planning should be incorporated into HIV/AIDS curricula and training and should be an essential component of STI treatment and management.

Systems Focus

Training programs should have an advocacy and consensus-building component to promote policies that will expand the scope of practice for nurses, midwives, and other cadres, such that they are able to provide PAC and FP services (e.g., MVA, IUD and Norplant insertion and removal, and assist with voluntary surgical contraception procedures). Human workforce development and logistics and contraceptive supply are areas that warrant greater attention and investment of resources. Specific activities might

include the development of strategies to attract qualified, trained nurses and midwives back into service or use of the performance improvement approach to address barriers that inhibit access to FP/RH commodities.

FUTURE DIRECTIONS: TRAINING

JHPIEGO–related training recommendations are contained in the section on capacity building. In this section, broader training issues, as they relate to both unmet needs and to GH management concerns, are discussed.

Unmet Needs

The need for specialized training assistance in FP/RH and other GH focus areas varies widely among USAID–assisted countries. In graduate and near-graduate countries, the need may be very specific and short term; in others, notably many Sub-Saharan African countries, the technical assistance needed may be more comprehensive and for a much longer term. As noted earlier in this report, a common theme is the acute manpower shortage throughout the health sector and the need to train multiple categories of service providers as quickly and as thoroughly as possible. Even trained personnel often require inservice updates and retraining in order to achieve desired levels of technical proficiency and currency. Unmet needs for trained service delivery personnel, however defined, are very great. Many countries still can benefit from specialized technical assistance to assist them in producing the needed trainers and providers and in establishing a viable in-country capacity to produce needed personnel in the future.

USAID Objectives and Options

From the USAID perspective, including the field Missions, the challenge is to find an efficient way to configure needed technical assistance in training to meet specific in-country needs, both short and long term. Additionally, the need to integrate training technical assistance effectively with other technical assistance (e.g., in service delivery, outreach, logistics, monitoring, and evaluation) is apparent if desired service-delivery outcomes are to be achieved. Specific logical steps might include

- identifying country-specific needs and priorities,
- developing country-specific strategies and projects,
- arranging for needed technical assistance in a way seen by field Missions as manageable
- linking training technical assistance effectively with other related assistance, and
- implementing, monitoring, midcourse correcting, and evaluating.

There are some relevant examples from the field where USAID–sponsored technical assistance providers (CAs and contractors) have worked together effectively, including India and Zambia.

The following 8–step scenario is an illustration of a process that might have merit:

1. A USAID field Mission requests assistance in defining priorities and programs.

2. GH, drawing on internal and contract personnel, provides a small team to the Mission to develop a strategy and a technical assistance project.

3. A health technical assistance group (HTAG) is formed, consisting of those CAs and contractors implicated in the Mission strategy who are to implement initial phases of the Mission program. The country-specific HTAG is effectively a dynamic consortium. It may or may not have a legal status, depending on whether or not it is desirable to channel funds through the HTAG.

4. The concerned Mission assigns a contract person (e.g., a technical adviser in AIDS, child survival, population, and basic education with signature authority) to work exclusively with the HTAG.

5. The Mission, through its contractor, sets up common office space, transport, and logistics support for the HTAG, including space for visiting personnel from the HTAG member organizations. The Mission's contract representative is physically located with the HTAG.

6. The Mission insists that the HTAG members all provide regular reporting on their activities and accomplishments according to a standardized format. These reports form the basis for regular meetings between the HTAG and the Mission representative(s) to review progress and problems.

7. All HTAG members agree that their products will be co-branded, (e.g., HTAG/Malawi).

8. As activities proceed and as the Mission desires to move toward bilateral funding, a bilateral project is developed and funding is provided, if desired, to the HTAG members (if the HTAG is a legal entity, it may even be possible for the Mission to contract directly with it, rather than with individual members).

The illustrative process described in these steps has the following desirable benefits:

- GH–sponsored technical assistance involvement in Mission strategy and project development;

- flexibility to contract for needed technical assistance;

- HTAG collocation, co-branding, common reporting format, and a common strategy;[52]

[52] Presumably, this strategy effectively links critical components of the country's service delivery system(s).

- Mission direct involvement in managing HTAG processes; and

- minimization of management units as seen by the field Mission.

There are a number of variants to this scenario, including some represented by actual field experiences.

Should USAID think of combining all health training (FP/RH, HIV/AIDS, MNH) into a single training project? It would be advisable not to combine too many elements into a single project, for the following reasons:

- specialization is useful, effective, and highly valued among clients;

- technical leadership is unlikely to be achieved through generalization,

- USAID should not dilute or drain the pool of excellence it has sponsored over the past 30 years, and

- large projects are likely to be difficult for USAID to manage.

These appendices are part of the
Evaluation of the Training in Reproductive Health (TRH III) Project
Report No. 2002–069–011, produced by the Population Technical Assistance Project
January 2003

APPENDICES

APPENDIX A

SCOPE OF WORK
(from USAID)

SCOPE OF WORK
Training in Reproductive Health

I. PROGRAM INFORMATION

Project Name: Training in Reproductive Health (TRH)

Cooperative Agreement Number: HRN-A-00-98-00041-00

Agreement value: $97,032,000.00

Obligation Date: 9/30/98

II. BACKGROUND

A. Project Overview

JHPIEGO Corporation is a non-profit affiliate of Johns Hopkins University that is dedicated to improving the health of women and families throughout the world by increasing the number of quality professionals trained in modern reproductive health. JHPIEGO has been conducting training with support from the USAID Office of Population 1988[1]. The current Training in Reproductive Health (TRH) agreement is the third consecutive cooperative agreement awarded to JHPIEGO. The current agreement has five *programming themes* that guide JHPIEGO's work:

- **Quality:** The overall TRH goal in this regard is to expand access to FP/RH service and strengthen the quality of the care provided. TRH accomplishes this in three ways. The first and most recognized method is improving clinical skills among service providers through evidence-based training and learning approaches, thereby expanding the abilities of institutions to respond adequately to the unmet need for FP/RH services. As part of this, TRH recognizes the importance of the technical aspects of quality such as the standardization of procedures, determining standards of practice/competence, and verifying clinical skills to ensure that health care providers offer their clients competent care. The second area of focus incorporates the use of anatomical models into training. Trainees must achieve a desired level of competence on models before offering services to clients. Finally, TRH uses a quality assurance framework for its learning and performance improvement interventions that includes developing, setting and disseminating standards, and verifying performance against those standards.

- **Sustainability:** To increase the likelihood of sustainability, TRH focuses on several key areas. These include developing regional resources, establishing effective partnerships with both public and private sector institutions, increasing the cost-effectiveness of interventions, and promoting financial sustainability. Much of TRH's work in developing sustainable training programs and systems has targeted local partners to develop effective pre-service education systems. Additionally, TRH

[1] In 1998, JHPIEGO was awarded the MNH cooperative agreement that is funded by the Bureau for Global Health, Office of Health, under Strategic Objective 2, increasing the use of key maternal health and nutrition interventions.

uses the Performance Improvement approach to strengthen in-service training systems.

- **Performance Improvement:** TRH uses Performance Improvement as a way of ensuring that the skills providers acquire during training are transferred into improved job performance. As a result, many TRH pre-training assessment efforts look at those barriers to performance that can be addressed by training, and those that require non-training interventions before, during, and after the training event. Moreover, TRH analyzes service delivery situations in countries where they work to strengthen the linkage between training and actual job performance.

- **Performance Support Services:** Performance Support Services (PSS) uses electronic and human resources to support a global network of reproductive health faculty, trainers, and their institutions in order to sustain job performance and provide opportunities for professional development.

- **Evaluation and Research:** Through special research and evaluation efforts, TRH documents the impact of integrated RH education and training on performance, and assesses the outcome of interventions designed to support maximum learning and performance in the workplace.

B. USAID's Bureau for Global Health

The Bureau for Global Health has five Strategic Objectives:

SO1: Increased use by women and men of voluntary practices that contribute to reduced fertility
SO2: Increased use of key maternal health and nutrition interventions
SO3: Increased use of key child health and nutrition interventions
SO4: Increased use of improved, effective, and sustainable responses to reduce HIV transmission and mitigate the impact of the HIV/AIDS pandemic
SO5: Increased use of proven interventions to reduce the threat of infectious diseases of major public health importance

TRH's efforts assist in achieving these Strategic Objectives. TRH significantly contributes to the achievement of SO1 through its organizational commitment to and competence in training and education. In addition, TRH contributes to SO2 by working with Post Abortion Care (PAC), and through the development and dissemination of clinical guidelines and protocols in many countries. TRH is also linked to SO4 through its work in infection prevention and safe IUD insertion practices.

C. TRH and Its Relationship to Training Results Framework

The TRH cooperative agreement was awarded at approximately the same time that the Training Results Framework (TRF) was developed by the Communication, Management & Training (CMT) Division. Below is a series of tables that provides explanation for each TRH intermediate result and subresult, as well as an example of TRH activities under that subresult, and evaluation indicators as described by the TRH cooperative agreement.

SO: Improved Provider Performance and Sustainable National Capacity for Training and Education in FP/RH			
IR 1: Strengthened Pre-service Education, in-service Training and Continuing Education Systems	*IR2: Improved Management Support Systems for Training*	*IR 3: Improved Policy Environment for Training*	*IR 4: Better Informed and Empowered Clients*
SR 1.1: Trained faculty and master trainers	SR 2.1: Logistical support for training available	SR 3.1: Budget and resources for training allocated at the national and regional levels	SR 4.1: Women and men better informed about quality services
SR 1.2: Increased capacity for curriculum development. Training program establishment, implementation and evaluation	SR 2.2: Policies, procedures and supervision systems in place	SR 3.2: Improved national standards, guidelines, norms, and protocols for service delivery and education sites	SR 4.2: Improved partner communication
SR 1.3: Clinical training sites fully functional	SR 2.3: Financial management systems functioning	SR 3.3: Improved policy development, dissemination and implementation process	SR 4.3: Changed community norms to facilitate improved reproductive health behavior
SR 1.4: Quality standards for training maintained	SR 2.4: Strategic planning capacity and deployment system established	SR 3.4: Leadership training, support and mentoring programs in place	
SR 1.5: Links established between trainers and SDPs	SR 2.5: Monitoring and information systems and tools in place to determine training needs		
SR 1.6: Improved application of information technology	SR 2.6: Approaches to evaluating effect of training on performance and quality of service tested		
SR 1.7: Effective approaches for training frontline and non-frontline non-traditional providers developed, tested and used	SR 2.7: Cost containment and recovery approaches tested and used		

Below is a series of tables that provides explanation for each TRH intermediate result and subresult, as well as an example of TRH activities under that subresult, and evaluation indicators as described by the TRH cooperative agreement. The two indicators for the strategic objective are the percentage of service providers trained performing to standard, and the number of countries with strengthened training systems that are producing competent service providers to meet defined RH training needs.

SO: Improved Provider Performance and Sustainable National Capacity for Training and Education in FP/RH

IR 1: Strengthened Pre-service Education, in-service Training and Continuing Education Systems

Subresults	Illustrative TRH Activities	Indicators
SR 1.1: Trained faculty and master trainers teaching/practicing in professional schools and training institutions	• Finalize a pre-service education package with WHO • Assist nursing and midwifery schools to improve the clinical and training skills of faculty and clinical instructors	• Number of pre-service reproductive health training programs established/ strengthened and functioning in one or more of the major pre-service training areas (i.e. nursing, midwifery, medicine): target 20 pre-service programs • Number of in-service RH training programs established/strengthened and functioning in one or more cadres (nursing, midwifery, medicine): target 6 in-service training programs
SR 1.2: Capacity for FP/RH for curriculum development established, mandatory courses in FP/RH instituted and appropriate materials and technologies utilized to implement and evaluate curricula and courses.	• Launch and disseminate Pre-service Education Implementation Guide and supporting materials • Assist nursing and midwifery schools to develop the capacity to revise curricula and be able to develop competency-based, learner driven educational materials	
SR 1.3: Clinical training sites and centers established and fully functioning at optimal performance	• Assist midwifery schools in Ghana standardize the provision of service at designated training sites • Strengthen the capacity of clinical practice sites to provide sufficient oversight to trainees	
SR 1.4: Demonstrated adherence to quality standards by professional schools and clinical training and education sites	• Integrate clinical supervision into ongoing supervisory systems	
SR 1.5: Links in place for provider mentoring between professional schools and associations and service delivery sites	• Develop clinical supervision skills for providers in Kenya	

SR 1.6: Improved application of information technology	• Develop internet-based and CD-ROM-based continuing education modules • Establishing Technology-based Learning Centers (TALCs)	
SR 1.7: Effective approaches for training fount line and non-traditional providers developed, tested and used	• Design and develop an individualized learning package for Clinical Training Skills • Develop and print an infection prevention job aid	

IR 2: Improved Management Systems

Subresults	Illustrative TRH Activities	Indicators
SR 2.2: Policies, procedures and supervision systems in place	• Develop a supervision learning package • Prepare clinical preceptors	• Numbers of individual students/training participants in specific RH/FP services deployed to an appropriate service delivery point and job assignment after graduation/ training: target 10 countries • Numbers of supervision visits which include supervisors/ trainers to ensure compatibility and continuity between initial follow-up of trained providers (by training organization) and routine/regular supervision of providers: target 10 countries • A training information system has been established at the national/regional/institutional level that documents the number of RH/FP professionals trained, by method and cadre: target 4 countries
SR 2.4: Strategic planning capacity and deployment system established	• Introduce training information system/strengthen to help influence decisions about service provider deployment	
SR 2.5: Monitoring and information systems and tools in place to determine training needs	• Develop an electronic nursing registry in Malawi to determine training needs	
SR 2.6: Approaches to evaluate the effects of training on performance and quality of service tested	• Conduct an assessment to examine factors that contribute to performance and service quality of providers	

IR 3: Improved Policy Environment for Training

Subresults	Illustrative Activities	Illustrative Indicators
SR 3.1: Budget and resources for training allocated at the national and regional levels	• Establish national and local consensus building bodies among stakeholders	• Number of countries in which national service delivery guidelines process (revision, updating, and dissemination) for continuing change in medical and training policies is institutionalized: target 5 countries • A group of RH experts and professional trainers (qualified advanced and master trainers) is recognized and utilized internationally for providing RH technical assistance and training: target 60 master and advanced trainers, 5 RH experts
SR 3.2: Improved national standards, guidelines, norms, and protocols for service delivery and education sites	• Update/develop and disseminate national service delivery guidelines	
SR 3.3: Improved policy development, dissemination and implementation process	• Organize a state of the art infection prevention meeting to discuss evidence-based best practices and discuss recommendations for East Africa • Conduct a regional infection prevention training of trainers workshop to rollout to national programs in East Africa	
SR 3.4: Leadership training, support and mentoring programs in place	• Track the development of pre-service faculty and trainers in each country	

III. PURPOSE OF EVALUATION

The principal purpose of this evaluation is to determine the extent to which the TRH project achieved the results described in its Cooperative Agreement. Additionally, the Office of Population and Reproductive Health is in the process of redesigning its service delivery support portfolio, and a portion of this evaluation will be dedicated to identifying field needs in the areas of pre- and in-service training, and performance improvement. Thus, the two main objectives of this evaluation are:

- To assess the extent to which TRH has accomplished the priorities and expected results defined by the Training Results Framework as described in their Cooperative Agreement
- To make recommendations about future strategic directions for improved training and performance field support

IV. STATEMENT OF WORK

Results and Accomplishments

This section of the evaluation will review TRH's accomplishments in relation to the Training Results Framework. TRH has engaged in a series of activities, and has indicated major achievements in IRs 1, 2, and 3. Below is a list of specific questions that this evaluation should attempt to answer:

Evaluation questions related to the Strategic Objective:

1. *The Strategic Objective in the TRH Cooperative Agreement is* Improved Provider Performance and Sustainable National Capacity for Training and Education in FP/RH. *In general terms, has TRH achieved this strategic objective? If so, what existing evidence demonstrates this accomplishment?*

Evaluation questions related to IR 1:

1. What are the results of TRH's *pre-service activities* during this agreement, and specifically, how have many pre-service RH/FP programs been established and/or strengthened?
2. How many in-service programs have been established and/or strengthened?
3. What is the relationship between pre- and in-service training? Where is TRH working?
4. The objective of pre-service education activities is to incorporate updated FP/RH knowledge and skills into regular service delivery. At this point in the process, how have TRH's pre-service activities affected the performance of service providers?
5. Can other results be identified besides those related to the direct impact of pre-service on the delivery of FP/RH services?
6. A major component of TRH's work has been to revise and integrate training curricula into institutions, and in many cases into national systems. This applies to both pre- and in-service training activities. Has TRH developed sufficient expertise in local institutions in terms of curriculum development and rollout to enable future curriculum revision and rollout activities? Where has this been done? What recommendations would you make to improve the institutionalization of this capacity at the local level?
7. Assess TRH's approach to developing clinical training sites. Is it effective (strengths and weaknesses), sustainable, and realistic given local circumstances?
8. How has TRH strengthened the link between training sites and service delivery points (SDPs)? Is this an effective strategy? How can it be improved?
9. TRH has developed eight (8) Technology Assisted Learning Centers (TALCs). How and by whom are these being used? How have they affected provider performance? Given the current circumstances, is this approach the most effective way of increasing FP/RH knowledge?
10. Is MODCAL an effective way of transferring information? How can it be improved? Overall, what would be the rationale for funding this approach in the future, if at all?
11. TRH has developed a number of materials to support the training and learning process. Assess the quality of those materials. What are the strengths and

weaknesses of the TRH approach to developing materials? How can this process be improved, if at all?

12. Do the clinical training sites provide, and are they used to provide a *sufficient amount* of competency-based training?

Evaluation Questions related to IR 2:

1. How many students/training participants in FP/RH services have been deployed to a service delivery point and job assignment after graduation/completion of training?
2. TRH has developed a Training Information Management System (TIMS). How effective has this system been in collecting data? How does this system link with other local training information systems (government, NGO, and USAID)? How helpful has it been for making future decisions about training? What are the strengths and weaknesses of this approach?
3. Under this agreement, TRH has begun to interface with clinical supervisors. What are the strengths and weaknesses of the TRH approach to clinical supervision?
4. How effective are the TRH approaches to evaluating provider performance *after training*? How is this information used? What evidence exists to indicate that TRH has built evaluation capacity in the countries where it works?
5. To what extent are the TRH guidelines and protocols being used? What is the evidence of this?

Evaluation Questions related to IR 3:

1. In how many countries has TRH institutionalized the capacity to review, revise and update service delivery guidelines?
2. Describe the TA assistance provided by staff from Drew University to TRH field programs. What evidence exists to indicate that the Historically Black Colleges and Universities (HBCU) initiative has been effective? Are there other ways TRH could link with HBCUs? If so, what are they?
3. The goal of the Reproductive Health Advisors program is to provide an MPH degree and work experience to participants so they can then return to their homes and become leaders in their respective countries. Is this happening? If so, provide examples. If it is not occurring, explain why. What are the strengths and weaknesses of this approach?
4. What are the strengths and weaknesses of TRH's approach to developing and disseminating national clinical guidelines and protocols? What evidence exists to indicate that TRH developed the capacity to develop and/or revise national clinical guidelines and protocols in the countries in which they have worked? What evidence exists to indicate that TRH has been effective in changing national training/service delivery policy? Provide specific country examples.

General Organizational/Management Questions:

1. What have been field missions' experiences working with TRH? Is TRH perceived as responsive? What have been their strengths and weaknesses in responding to missions and field programs?
2. Evaluate TRH's effectiveness in collaborating with organizations (both local and other CAs) the field.

3. One of TRH's programmatic themes is evaluation and research. Are TRH evaluation indicators relevant? Is the information learned from TRH evaluation(s) rolled into future TRH programming/activities?
4. What are the key findings from TRH country evaluation activities? How are these findings disseminated? Is the method of dissemination effective? What implications do these findings have for the future?
5. How effective is the JHPIEGO organizational and management structure in achieving results? How appropriate is it for decision-making? How does the JHPIEGO organizational structure define and monitor the quality of TRH's work?
6. TRH shares staff with other USAID funded projects (e.g. MNH). How has this affected the TRH project in terms of availability of staff and cost effectiveness?
7. If JHPIEGO/TRH was expected to do research (major theme -- Evaluation and Research), did they develop a research agenda and carry it out? What studies have been completed? Published? Published in peer-reviewed journals? How well do the studies address key questions in the field?

Future Strategic Direction

Information provided in this section will contribute to the Office of Population and Reproductive Health's new service delivery design development. The emphasis on future strategy should only be 25 percent of the report.

1. Is the CMT training results framework relevant to future needs and challenges in FP/RH services delivery?
2. Assuming the emphasis on pre-service education was to continue, how could the TRH approach be modified, if at all, to better meet the needs of country programs and systems and improve the impact on FP/RH service delivery?
3. Based on the decline of field support funding to TRH, what can we deduce? Is training still needed by Field Missions? Are Missions funding training through other Agency contracting mechanisms? Are other donors financing training? What role do direct, bilateral mission agreements play?
4. In terms of the future, what components of the TRH portfolio should be maintained in their current form? What components should be retained, but modified? How should they be modified?
5. Is there a need for a Bureau-wide service provider training, performance improvement, and human capacity development project? What are the pros and cons of a bureau-wide project? What should be the relationship between pre- and in-service training in a future project? What should be the relationship between training primary and secondary service providers?

V. RESOURCES & PROCEDURES

Data Sources

The evaluation team will review all project documentation, including but not limited to the following: the TRH Cooperative Agreement, Evaluation of the Fourth Cooperative Agreement, the 2001 management review, annual workplans, research and technical reports, country evaluation reports, and other relevant correspondence.

The team will conduct interviews with USAID mission and Washington staff, and key JHPIEGO staff members. A select number of CAs that work with TRH will also be contacted regarding TRH's work in the field. For questions related to the project's impact, the evaluation team will use TRH technical reports, research and evaluation studies, and evidence from field visits.

Methods of Data Collection

Prior to arrival in Washington, JHPIEGO will be asked to conduct a self-assessment, which will be provided as a data source for the team. In addition, mission surveys, developed by the team in conjunction with USAID, will be sent out prior to the team's arrival in Washington. While in Washington, the team will conduct phone interviews, based on the surveys, with 3-4 missions where TRH has worked during the period of this award. See Attachment 1 for the self-assessment questions

Next, the data collection team members will begin field visits. All team members will visit Malawi. The information technology specialist will also visit Bolivia. The nurse-educator, clinician, senior program management specialist, and training specialist will be split into two teams to visit Ghana or Kenya/Zambia. In the context of this evaluation, team members will not be necessarily be required to travel together.

Duration and Timing of the Evaluation

The evaluation will begin in late early September. A total of six weeks will be needed for data collection and drafting the report, and approximately fourteen weeks for the entire evaluation. After the team leader receives comments on the first draft of the report, s/he will require additional time to incorporate comments into the report. A timeline is outlined below:

Week 1-2:	Prep days and travel to DC
	2 days for Team planning meeting
	3 days for Washington interviews
	2 days for Baltimore interviews
Week 3-4	Field Visits; mission interviews
Week 5:	Prepare for debriefing
Week 6:	1 day to debrief USAID
	1 day to debrief JHPIEGO
	Write draft report
Week 7-8:	Finalize draft report

First draft distributed to USAID CTO/STA and JHPIEGO and for comments

Week 9: Comments received by team leader

Week 10: Team leader finalize second draft

Week 11: Team leader submits final draft to POPTECH

Week 14: Distribution of final report

Team Composition

The evaluation team will consist of four members with the technical expertise described below.

1. A team leader who possesses some knowledge of training and learning in the FP/RH context. This individual should have extensive experience in facilitation and process management.
2. A senior program management specialist who is familiar with GH programs and has experience in design, implementation and evaluation of FP/RH programs. This person should have field experience and knowledge of GH results programming and strategic objectives.
3. A nurse-educator who has experience in and is familiar with nursing education, in its clinical, didactic, and curriculum development aspects.
4. A clinician who has experience with FP/RH training programs in developing countries.
5. An information technology specialist who has experience with E-learning and computer assisted learning technologies in low-resource settings. It is necessary that this person speak Spanish.
6. Two representatives from the Office of Population & Reproductive Health's Services Improvement Division who will serve as USAID technical advisors (one in training and program implementation and the other in clinical services). The role of the USAID technical advisors will be resource persons who provide technical assistance, historical explanation, and clarification of SDI strategic directions.

Funding and Logistical Support

All funding and logistical support for the TRH Project evaluation will be provided through the POPTECH Project of the Office of Population. Covered activities will include recruiting and supporting the evaluation team, amassing Mission responses, funding all expenses related to the evaluation, providing logistical support including setting up meetings for the team in both Washington and countries visited, and producing and distributing draft and final reports. This report will be a fully edited POPTECH report with approximately 100 hard copies distributed.

Attachment 1
Self-Assessment Questions

1. The Strategic Objective in the TRH Cooperative Agreement is Improved Provider Performance and Sustainable National Capacity for Training and Education in FP/RH. Summarize the main achievements under this objective. How are the achievements demonstrated and documented?

2. What are the results of TRH's *pre-service activities* during this agreement? How many pre-service RH/FP programs been established? How many pre-service programs have been strengthened?

3. How many in-service programs have been established and/or strengthened?

4. What is the relationship between pre- and in-service training?

5. In how many countries has TRH institutionalized the capacity to review, revise and update service delivery guidelines?

6. TRH has developed a number of materials to support the training and learning process. What are the strengths and weaknesses of the TRH approach to developing materials? How can this process be improved, if at all?

7. TRH has developed a Training Information Management System (TIMS). How effective has this system been in collecting data? How does this system link with other local training information systems (government, NGO, and USAID)? How helpful has it been for making future decisions about training? What are the strengths and weaknesses of this approach?

8. How is the impact of training on provider performance measured? How is this information used? What evidence exists to indicate that TRH has built evaluation capacity in the countries where it works?

9. How and to what extent are the TRH guidelines and protocols being used? What is the evidence of this?

10. What TA does HBCU staff provide to TRH field programs? What evidence exists to indicate that the Historically Black Colleges and Universities (HBCU) initiative has been effective? Are there other ways TRH could link with HBCUs? If so, what are they?

11. What are the strengths and weaknesses of the TRH approach to developing and disseminating national clinical guidelines and protocols? What evidence exists to indicate that TRH developed the capacity to develop and/or revise national clinical guidelines and protocols in the countries in which they have worked? What evidence exists to indicate that TRH has been effective in changing national training/service delivery policy? Provide specific country examples.

12. Are the current TRH evaluation indicators relevant? How should they be changed? Is the information learned from TRH evaluation(s) rolled into future TRH programming/activities?

13. What are the key findings from TRH country evaluation activities? How are these findings disseminated? Is the method of dissemination effective? What implications do these findings have for the future?

14. Please provide an organization diagram of JHPIEGO. How effective is the JHPIEGO organizational and management structure in achieving TRH results? How appropriate is it for decision-making that affects the TRH project? How does the JHPIEGO organizational structure monitor the quality of TRH's work?

15. Assuming the emphasis on pre-service education was to continue, how could the TRH approach be modified, if at all, to better meet the needs of country programs and systems and improve the impact on FP/RH service delivery?

16. Since the beginning of the TRH agreement field support has declined. Please describe the reasons for this?

17. One of the criticisms of JHPIEGO is that the cost for services is too expensive, especially for field programs. Please comment on this.

18. What are the strengths and areas for improvement in the TRH approach to establishing partnerships with USAID missions, other donors, host country governments and other cooperating agencies?

19. What have been the three biggest challenges JHPIEGO has had to face in implementing the TRH cooperative agreement? How did you overcome them? What challenges do you see in the future?

APPENDIX B

PERSONS CONTACTED

PERSONS CONTACTED

UNITED STATES

U.S. Agency for International Development

Bureau for Global Health
- Duff Gillespie, Senior Deputy Assistant Administrator
- **Office of Population and Reproductive Health**
  - Margaret Neuse, Director
  - James Shelton, Senior Medical Advisor
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    - Michele Moloney-Kitts, Chief
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    - James Griffin, Cognizant Technical Officer, JHPIEGO
    - Dana Vogel, PHN Officer
  - **Policy, Education and Communication Division**
    - Maria Busquets, Technical Information Specialist
- **Office of Health, Infectious Diseases and Nutrition**
  - Mary Ellen Stanton, Senior RH Advisor

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Fred Dominguez, Program Coordinator, International Health Institute
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JHPIEGO Corporation, Baltimore, Maryland
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Kelly Curran, Technical Development Officer, HIV/AIDS Program
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APPENDIX C

TRH COUNTRY PROGRAMS 1998–2002
(from JHPIEGO)

TRH COUNTRY PROGRAMS
JHPIEGO Country Programs under TRH III

COUNTRY	1998	1999	2000	2001	2002	2003
Bolivia						
Brazil						
Burkina Faso	PAC	PAC	PAC	PAC	PAC	PAC
Ecuador						
Ghana*						
Guatemala				bilateral		
Guinea	PAC	PAC	PAC	PAC	PAC	PAC
Haiti						
India						
Indonesia*				bilateral		
Jamaica				Thru QAP + bilateral (sub to TFG)		
Kenya*				bilateral		
Malawi						
Moldova						
Morocco*						
Nepal*						bilateral
Peru*						
Philippines*						
Rep of Georgia						bilateral
Russia						
Senegal	PAC	PAC	PAC	PAC	PAC	
Turkey						
Uganda*						Bilateral
Ukraine						Bilateral
Zambia	PAC	PAC	PAC	PAC	PAC	PAC
Zimbabwe						
Central Asian Republics		MAQ	MAQ			

***USAID Priority Countries**

Field Support	Country Activities predominantly operated with core	Bilateral Activities	No TRH Activities

APPENDIX D

JHPIEGO RESPONSES TO TRH EVALUATION SELF–ASSESSMENT QUESTIONS

(from JHPIEGO and USAID)

JHPIEGO
An affiliate of
Johns Hopkins University

working to improve the health of women and families throughout the world

TRAINING IN REPRODUCTIVE HEALTH (TRH) PROJECT

RESPONSES to TRH EVALUATION SELF-ASSESSMENT QUESTIONS

26 August 2002 & 6 September 2002

ABBREVIATIONS

AED	*Academy for Educational Development*
ANM	*Auxiliary Nurse Midwives*
BPT	*Best Practices in Training (Conference)*
CA(s)	*Cooperating Agency(ies)*
CDC	*Centers for Disease Control and Prevention*
CTS	*Clinical Training Skills (Course)*
CTU	*Contraceptive Technology Update*
DFID	*Department for International Development (Aid agency of the United Kingdom)*
DHS	*Demographic and Health Surveys*
FHI	*Family Health International*
FP/RH	*Family Planning/Reproductive Health*
HBCU	*Historically Black Colleges and Universities*
HCD	*Human Capacity Development*
IBP	*Implementing Best Practices*
IP	*Infection Prevention*
JSI	*John Snow Incorporated*
IRO	*Information Resources Office, JHPIEGO*
JHU/CCP	*Johns Hopkins University Center for Communication Programs*
LPS	*Learning and Performance Support Office, JHPIEGO*
MAQ	*Maximizing Access and Quality*
MNH	*Maternal and Neonatal Health (Program)*
ModCAL®	*Modified Computer-Assisted Learning*
MOE	*Ministry of Education*
MOH	*Ministry of Health*
MSH	*Management Sciences for Health*
MVA	*Manual Vacuum Aspiration*
NCTN	*National Clinical Training Network, Indonesia*
NGO	*Nongovernmental Organization*
NMCM	*Nurses and Midwives Council of Malawi*
NSV	*No-Scalpel Vasectomy*
OJT	*On-the-Job Training*
OSCE	*Objective Structured Clinical Examination*
PAC	*Postabortion Care*
PI	*Performance Improvement*
QAP	*Quality Assurance Project*
SDG	*Service Delivery Guidelines*
SFPS	*Santé Familiale et Prévention de SIDA (Family Health and AIDS Prevention)*
STI	*Sexually Transmitted Infection*
TALC®	*Technology-Assisted Learning Center*
TFGI	*The Futures Group International*
TIMS©	*Training Information Monitoring System*
VCT	*Voluntary Counseling and Testing*

1. **The Strategic Objective in the TRH Cooperative Agreement is Improved Provider Performance and Sustainable National Capacity for Training and Education in FP/RH. Summarize the main achievements under this objective. How are the achievements demonstrated and documented?**

   Since 1988, TRH has assisted 21 countries with preservice education and 27 countries with inservice training. These countries now have sustainable, strengthened training systems, and are producing competent healthcare providers to meet reproductive health training and service delivery needs. The target in the TRH cooperative agreement was 15 countries. These country programs have focused on one or more of the three main healthcare provider cadres—medical, nursing and midwifery personnel. In many countries, including Kenya, Indonesia and Turkey, training systems development and strengthening has had an integrated focus, linking inservice training systems with preservice education efforts.

Achievement of this component of the strategic objective is best illustrated by the results of key evaluations and reviews that have been conducted. **Table 1** summarizes the sustainability resulting from TRH training systems development work in a range of countries.

Table 1. Key Training Systems Evaluations under TRH

Country	Report Title	Result Summary
Kenya	Developing a National Family Planning/Reproductive Health Clinical Training System in Kenya	The mid-term review documented a very effective and functioning integrated national training system (inservice nursing and medical and preservice nursing) that continues to be sustained even after the new bilateral project was awarded and TRH efforts ended.
Bolivia	Evaluation of JHPIEGO's Assistance to Family Planning/Reproductive Health Inservice Training in Bolivia: 1994–1998	An evaluation of JHPIEGO assistance to the Bolivian health sector to build reproductive health training capacity by establishing 9 regional inservice training centers showed that almost all of the original nurse-doctor training teams were still in place and functioning. Building on the well-established inservice training capacity were efforts to strengthen preservice education and training for FP/RH at 2 medical and 5 nursing schools.
Brazil	JHPIEGO's Programmatic Efforts in Brazil: Eight Years of Achievements, 1992–2000	The program closeout review documented the comprehensive training systems development work especially the very successful support from PROQUALI in 2 key states in Brazil.
Philippines	Institutionalization of Reproductive Health Preservice Education in the Philippines: An Evaluation of Programmatic Efforts, 1987–1998	A retrospective evaluation confirmed that the preservice nursing/midwifery training systems strengthening had been institutionalized and sustained three years after the TRH program closed.
Uzbekistan	Capturing Successes of Clinical Training Systems in Uzbekistan Using a Self-Directed Assessment Paradigm	The results showed that an accessible regional training network was established and well equipped to handle training needs in Uzbekistan, including curriculum design. The likelihood of sustainability is high because key faculty had already implemented use of competency-based training and training sites had found ways to use limited resources to continue training with the use of a lending-library system for materials and TALCs for information updates.
Indonesia	Review of Achievements in the Training in Reproductive Health Project in Indonesia (1997–2000)	A review of achievements of the National Clinical Training Network (NCTN) showed that the NCTN successfully transitioned from a donor-funded project and continues to provide training in nearly 90 sites around Indonesia—no small feat, given the great diversity in the country and the variety in funding sources and mechanisms for training. There is a strong foundation upon which to build a more sustainable and cohesive organization for as long as the need for RH clinical training exists.
Country	**Report Title**	**Result Summary**

Turkey	Establishing Integrated Preservice and Inservice National Family Planning/Reproductive Health Clinical Training Systems in Turkey	A review of 10 years of program efforts in Turkey showed that integrating preservice efforts in medical institutions and vocational and university-based midwifery schools along with inservice training efforts ensured a cost-effective national integrated training system capable of sustaining high quality preservice education programs for interns and midwives. The inservice training system established will support the MOH to expand FP/RH training to other provinces while the preservice education system will support all university-based midwifery school students by strengthening their FP/RH and maternal health skills as they progress toward their degree.

In assessing **provider performance**, TRH conducted performance and level 3 training evaluations to determine whether trained healthcare providers (from preservice education and/or inservice training programs) were performing to standard. As summarized in **Table 2**, TRH has documented that when providers are trained to a standard, they are more likely to retain competency following training, and that alternative training approaches, such as OJT, can have a positive effect on provider performance.

Table 2. Key Evaluations of Provider Performance

Country	Report Title	Result Summary
Ghana	An Evaluation of Job Performance of Midwives One Year After Graduation in Ghana	A Level 3 training evaluation of job performance of midwives 1 year after graduation showed that midwives trained at intervention schools had significantly better total knowledge and total skills than the midwives in the comparison group.
Nepal	An Assessment of the Quality of Postabortion Care Services in Nepal: Training and Service Delivery Perspectives, 2001	Demonstrated that PAC services are in place and functioning at 9 hospitals, providing increased access to PAC services for women living in and outside of the Kathmandu valley.
Nepal	A Self-Paced Learning Package for Training in the No-Scalpel Vasectomy Technique: The Experiences of Trainers and Participants in Nepal. 2002	Determined efficiencies in training using the self-paced learning package. Sixty percent of the participants competent in all 16 critical steps on the NSV checklist and post-operative IP practices were improved.
Moldova	Effectiveness of Contraceptive Technology Update Training: Improved Family Planning/ Reproductive Health Knowledge and Stated Practices of Service Providers in Moldova	Positive impact of the update training evidenced by increased knowledge levels and good knowledge retention levels; FP service practices also changed as a result
Jamaica	Developing a Sustainable Communication Strategy to Increase Compliance with the National Family Planning Guidelines: Baseline Assessment Results	Demonstrated use of standardized clients and OSCE methodology in inservice setting to assess provider performance.
Kenya	The Effectiveness of National Dissemination of Updated Reproductive Health / Family Planning Guidelines in Kenya	Documented that healthcare providers are more likely to change their performance and have an impact on staff at their service delivery site, when they are prepared with a short update and materials to orient their colleagues to new information, even only a knowledge update. Additionally, when support supervision is provided to sites, positive changes in retained knowledge and stated practices were even more dramatic.

These evaluations of TRH-funded preservice education and inservice training programs demonstrate that TRH programs have resulted in improved provider performance and sustainable national programs.

In addition, key TRH accomplishments since 1998 that are of particular significance in the FP/RH field are summarized below:

Implementation of alternative learning approaches designed to maintain quality of training while increasing efficiency and ensuring sustainability

- Design and implementation of structured on-the-job training (OJT) and other self-paced learning packages to train IUD providers (Zimbabwe and Kenya), NSV providers (Nepal) and PAC providers (Nepal and Zambia)
- Use of our award-winning ModCal® Clinical Training Skills (CTS) in several countries to increase the efficiency of and reduce the cost of training clinical trainers
- Establishment and maintenance of 11 Technology-Assisted Learning Centers (TALCs) in seven countries

Improving provider performance

- Demonstration of the effectiveness of both support supervision and new approaches to updating healthcare providers (dissemination of the Kenya National RH Policy Guidelines and Standards for Service Providers)
- Establishment of comprehensive postabortion care (PAC) interventions in the public sectors of seven countries, including changing national policy in Nepal to permit nurses to provide PAC services. (In some cases, PAC services existed but consisted of D&C with no contraceptive counseling, method provision or referral; in others, PAC cases were referred but are now treated on site.)
- Integration of Performance Improvement (PI) into country programs through assistance to implement a PI approach not only in TRH programs but also in MNH countries such as Tanzania and Guatemala

Building capacity

- Establishment of the Regional Centre for Quality of Health Care (RCQHC) at Makerere University in Uganda to build regional capacity to advance the quality of healthcare in Africa. The RCQHC now has the capacity to offer short and diploma courses and technical assistance, focusing on quality improvement, to institutions and governments throughout the region.
- Provision of support to Morehouse School of Medicine and Charles R. Drew University, two Historically Black Colleges and Universities, to build capacity to manage programs to strengthen training systems, resulting in faculty/staff from each institution being able to provide international technical assistance in FP/RH
- Demonstration of sustainability of preservice education programs in Turkey and the Philippines

2. What are the results of TRH's preservice activities during this agreement? How many preservice RH/FP programs been established? How many preservice programs have been strengthened?

At the inception of the current cooperative agreement, TRH had targeted working in 20 preservice education programs. As of June 2002, TRH reached 32 preservice cadres in 21 countries. Programs have been ongoing and strengthened in 15 countries and new programs were established since late 1998 in Indonesia (midwifery), Republic of Georgia (medical) and four of the five Central Asian Republics (Uzbekistan, Kyrgzstan, Turkmenistan, Kazakhstan) (medical). Much of the country program work in TRH's preservice initiative is now focused on nursing and midwifery cadres. Medical preservice education is still important but, in many countries, TRH efforts in this area have been focused solely on PAC training. **Table 3** shows the countries, as of June 2002, where TRH has implemented preservice education programs.

Table 3. Country, Program Focus and Cadres in Preservice Education in TRH

Preservice Education in TRH: 32 Cadres in 21 Countries (as of June 2002)			
Country	**Medical**	**Nursing**	**Midwifery**
Bolivia	X		
Brazil	X		
Ecuador	X	X	
Ghana	X		X
India	X		
Indonesia	X		X
Kenya	X	X	
Malawi	X	X	
Morocco	X		
Nepal	X	X	X-ANM
Peru	X		X
Republic of Georgia	X		
Turkey	X		X
Uganda	X	X	
Ukraine	X		
Zambia			X
Zimbabwe		X	X
Regional project for four Central Asian Republics: Uzbekistan, Kyrgzstan, Turkmenistan, Kazakhstan	4X		

The components of the preservice education (and inservice training) systems that are strengthened by TRH in each of its programs include:

- FP/RH portions of the curriculum/course schedule
- Learning/training materials for implementation of the curricular components
- Faculty/clinical staff technical and training knowledge and skills (classroom instruction, clinical practice)
- Clinical practice/training sites

In an increasing number of programs, the following are also strengthened:

- Quality Monitoring System
- Training Information System

TRH also strengthens other peri-program components of preservice (and inservice) systems including the following:

- Licensure/certification of providers
- Provider deployment/job assignment
- Provider supervision
- Development of comprehensive workforce development plans
- Qualification of trainers/trainer development
- Participant selection criteria

Several country programs have expanded and are addressing peri-program components. For example, supervision and quality assurance have been addressed in:

- **Uganda and Ghana: Support supervision system established and functioning for preservice nursing and midwifery**
- **Brazil: Quality Recognition Model expanded to 25 primary care centers, and dissemination strategy for statewide expansion developed**
- **Kenya: Clinical supervision initiative ongoing after Supervision Needs Assessment conducted**

In most of the programs to strengthen preservice education, several of the preservice system components—FP/RH curricular component/course schedule, staff/faculty (classroom instruction, clinical practice), learning materials and clinical training sites—were part of the foundation for the strengthening intervention. The immediate effect of this foundation building and an important result of preservice intervention efforts in all these country programs is that in a short time:

evised curriculum and training materials have been harmonized with and reflect national guidelines for FP/RH services.
There is updated clinical practice at high quality service delivery sites by both providers and students.
Students are trained in and providing essential services.
Students' clinical practice contributes to ongoing service delivery.
Students are immediately productive as healthcare providers when they take their place in the workforce.

The cost-benefit of preservice education is also demonstrated and seen fairly rapidly when the following components are strengthened and resources are in place:

- Faculty and preceptors are trained and functioning.
- Curricula are revised and being implemented to change/update what students learn.
- Clinical sites are upgraded and high quality services are being provided to clients.
- Learning materials and logistics are adapted and available.

This also means that the need for recurrent inservice training cycles is reduced within a short timeframe, thus conserving scarce training resources.

Evaluations have been conducted of selected TRH preservice education programs. Seminal results from several of these are shown in **Table 4**.

Table 4. Seminal Results from Preservice Evaluations under TRH

Country/Year	Results
The Philippines (March 2001)	FP/RH preservice investments made in 27 preservice nursing and midwifery schools had been institutionalized and sustained 3 years after TRH program close-out: • Availability of trained faculty, continued implementation of family planning/reproductive health (FP/RH) curricular components, availability of functioning clinical training sites • Licensure examination passing rates of graduates from intervention schools consistently higher than the national average • Designation of all school clinics as service delivery points for the government's FP program
Ghana (April–May 2002)	An evaluation of job performance of midwives 1 year after graduation showed that midwives trained at intervention schools had significantly better total knowledge and total skills than the midwives in the comparison group.
Turkey (2002)	Integrated family planning/reproductive health preservice midwifery education has been established and is functioning at 19 university-based schools: • Midwifery training costs reduced by 20% as the preservice program allowed students more FP/RH education from the beginning of their midwifery careers • Economies of scale from using the same clinical training resources (sites and trainers) for both preservice and inservice training programs • A national-level system certifying midwifery students to provide IUD insertion and removal and general FP counseling in the public and private sector
Uganda (1999)	Evaluation of the preservice nursing and midwifery project in nine schools (1995–1999): • FP/RH service delivery had improved at clinical training sites: o Increased number of clients increased over the period 1995 to 1999 (by 160%) o Nine clinics offering improved RH services (counseling, IP, FP, STI services) • Tracking the employment status of 1998–1999 nursing/midwifery graduates: o Average of 295 graduates each year with strengthened RH skills o Over 90% of graduates working in the health field (393 graduates from nine schools) o 72% of graduates providing a range of health services including FP/RH services
Morocco (1998)	• In answer to the question: *Are 6th-year medical students ready to practice during their internship (7th) year?*, the evaluation documented that: o The revised curriculum for FP/SM rotation had been implemented (five ob/gyn rotation groups over 1 academic year). o There was no significant difference in skill retention between two different rotation groups, despite a 6-month time difference in the training intervention.

Finally, global results in the preservice initiative include development and implementation of key materials and resources. Trainers at various levels (clinical, advanced, master) function in preservice education—both as faculty and clinical preceptors. Two global preservice documents have been developed:

- *Preservice Implementation Guide: A Process for Strengthening Preservice Education.*
- *Preservice Education Teaching Skills: A Faculty Development Package* (joint WHO/JHPIEGO)

3. How many inservice programs have been established and/or strengthened?

TRH has established and/or strengthened inservice training programs for 42 cadres in 27 countries. Fifteen countries were originally envisioned when the cooperative agreement was approved in 1998. **Table 5** below shows the distribution of the programs by country and cadre.

Table 5. Country, Program Focus and Cadres in Inservice Training in TRH

Inservice Training in TRH: 42 Cadres in 27 Countries (as of June 2002)			
Country	**Medical**	**Nursing**	**Midwifery**
Bolivia	X	X	
Brazil	X		
Burkina Faso	X		
Ecuador	X	X	X
Ghana	X	X	
Guatemala	X	X	
Guinea	X		
Haiti	X	X	
India	X		X ANM
Indonesia	X		X
Jamaica		X	
Kenya	X	X	
Malawi	X	X	
Moldova	X		
Nepal		X	X
Peru	X	X	
Republic of Georgia	X		
Senegal	X	X	X
Turkey	X		
Ukraine	X		
Zambia	X		
Zimbabwe		X	X
Regional project for five Central Asian Republics: Uzbekistan, Kyrgzstan, Turkmenistan, Kazakhstan, Tajikistan	5X		

A key reason for the increase in the number of inservice training programs/countries has been that there was an ongoing need for PAC inservice training, together with a need for focused inservice family planning training in Central Asia. For example, standardized family planning and reproductive health (FP/RH) curricular components were incorporated into the government national training system as a part of education and training for ob/gyns, primary care physicians, nurses and midwives in the Ukraine, thus dramatically increasing sustainability of USAID-funded efforts to strengthen training of FP/RH service providers. In May 2001, a 3-day competency-based FP/RH course was endorsed by the MOH in the Ukraine and incorporated into postgraduate training of primary care physicians. This was followed by successful advocacy for a policy change so that midwives and physician assistants could provide contraceptive counseling to clients. This change opened the way for expansion of FP services to health facilities not served by physicians.

Evidence of the effectiveness of various inservice training programs is best shown in the summary of results from several evaluations conducted by TRH as well as those on which we have collaborated, as shown in **Table 6**.

Table 6. Key Results from Evaluations of Selected Inservice Training Programs

Country and Topic	Results
Kenya: Do CTUs for Guidelines Dissemination Improve Access to Family Planning in Kenya? 2001 (JHPIEGO, FHI, and the Population Council in collaboration with MOH/DPHC)	Cascade training for standards and guidelines dissemination: Linking support supervision visits with the dissemination of the *Kenya National Reproductive Health Policy Guidelines and Standards for Service Providers* increased FP knowledge of healthcare providers and FP service provision practices. • Within a 4-month period, the revised RH guidelines disseminated to over 1,000 healthcare providers in 50 districts using the existing decentralized training center system. • Preparing providers attending the reproductive health updates to orient their colleagues to new information had a strong impact on retained knowledge of site-based providers and stated FP service provision practices. • The addition of support supervision effectively doubled that impact. • Provider knowledge and practices improved. Of the 68% of providers at baseline who thought that non-menstruating clients should be sent home to await menses before receiving prescribed contraception, at followup, only 41% of the group receiving the update and only 9% of the group receiving both an update and support supervision thought those women should be sent home.
Bolivia: Level 3 training evaluation of the inservice training system, 2000	Five years of inservice training system efforts (from 1993–1998) contributed to the expansion of FP/RH services in Bolivia. Training investments made in the system were still in place and functioning: • The original nurse-doctor training teams at the nine National Training Centers (NTC) were still in place, some from as far back as 1992. • Provider FP/RH knowledge and counseling skills were good. • Preservice institutions (medical and nursing schools) benefited from the NTCs (sharing trainers and sites). • Evaluation capacity was built in the 30 NTC trainers who served as data collectors, giving them the opportunity to recognize variations in training and illustrating to them the need to ensure standardized training curriculum including implementation. • Lack of a system for tracking trained providers meant it was very difficult and time-consuming to identify and locate trained providers working in the MOH system, even more of a challenge in decentralization.
Quality of Services of Mobile Teams in Haiti, 1999 (Evaluation was conducted by FHI in collaboration with JHPIEGO)	Another CA conducted the training intervention before mid-1990. TRH provided IST in skills standardization, infection prevention and counseling from 1997–1999 to healthcare providers, some of whom participated on the mobile teams that provide clinical FP services (minilaparotomy under local anesthesia (ML/LA) and Norplant implants) at district-level hospitals and peripheral clinics. Key findings from the assessment of the quality of services were that: • Institutions that benefited from mobile team services had a better community approach (recruitment, counseling, followup) to provide FP care than others. • Level of training of community healthcare workers, auxiliaries, nurses and doctors was not the same for all institutions. Some doctors had not even had a formal training in voluntary surgical contraception. • Generally, no FP service coordination between the Direction Départementale, the regional hospitals, the care centers and health posts.
Nepal: The Effectiveness of the Self-Paced No-Scalpel Vasectomy Learning Approach, 2001	Self-paced training approach for No-Scalpel Vasectomy (NSV) training evaluated for its benefits to the inservice training system demonstrated it as an innovative, effective way to conduct competency-based training for NSV with limited caseload: • Used at three training sites from September 1999 to September 2000; 30 providers achieved competency in NSV from the self-paced course. • Five of six trainers were able to fulfill clinical duties adequately while conducting NSV self-paced trainings. • Of the 27 participants, 18 reported that they had provided services at their posts. Those who never provided services cited the lack of NSV sets. • The majority of participants and trainers felt that the training was very effective in transferring NSV skills and knowledge.

4. What is the relationship between preservice education and inservice training?

TRH has extensive experience in working with stakeholders to strengthen preservice education and establish inservice training systems. **Table 7** compares preservice education and inservice training.

Table 7. Relationships between Preservice Education and Inservice Training

Component	Preservice Education	Inservice Training
Purpose	To provide a set of basic skill competencies needed by all healthcare providers within a specific cadre (e.g., nurses, physicians, midwives)	To provide additional training in new/updated knowledge and skills
Audience	**All** individuals who want to become healthcare providers (e.g., physicians, midwives, nurses)	Practicing providers who need specific new/updated knowledge or skills to improve job performance related to their **current** job responsibilities
Selection criteria	Those individuals who complete basic educational requirements	Those providers with an **identified need** to improve job performance related to a specific skill
Advantages	• Reaches a large number of providers at one time • Longer learning period is more appropriate for mastering skills • What students learn in preservice often stays with them for life • Strengthens existing educational institutions	• Immediate impact on provider performance and client services • Strengthens existing service delivery sites • Strengthens supporting services (e.g., logistics) • Develops clinic sites to support preservice education
Challenges	• Coordination with MOH, MOE, accreditation bodies, licensing bodies, etc. • Infrastructure needs (e.g., class-rooms, libraries, audiovisuals) • Clinical and teaching skills of faculty • Large class sizes • Reference materials for faculty and students • Lack of control over clinical training sites • Coordination between classroom and clinical teaching • Sufficient caseload for practice during clinical teaching • Strengthening only a portion of the curriculum can be difficult and/or disruptive of the rest of the curriculum	• Disruptive to services as clinicians often leave their site for a period of time • Skills learned often seen as an "add on" or extra work for the provider • Costs of travel, per diem, trainer, supplies, etc. • Sufficient caseload for practice during the training course • Only periodic access to training • Decisions regarding who will attend which training courses often not made based on actual need
Sustainability	Generally greater sustainability than inservice training as part of educational system	Less sustainable as it is often not a budget line of its own; dependent on donor funding

Preservice and inservice are not "either/or" but complementary approaches best taken as components of a single coordinated approach to strengthening the quality and sustainability of

health services. As this strengthening process requires time, inservice training is used to improve provider performance and develop clinical training sites. Ideally, as the knowledge and skills of graduates of preservice education improve, the need for inservice training will decline, and limited mainly for advanced training in new or specialty areas.

The recommended TRH approach in a country is first to conduct a performance needs assessment, looking at desired and actual job performance, and then to explore the root causes of performance problems. When the root cause of poor provider performance is the lack of knowledge and skills, then appropriate interventions include implementing inservice training and strengthening preservice education.

5. In how many countries has TRH institutionalized the capacity to review, revise and update service delivery guidelines?

TRH has supported the capacity of incountry institutions to review, revise and update family planning (FP) and (RH) reproductive health service delivery guidelines (SDGs) in 27 countries:

Region	Country	
Africa (12)	1. Burkina Faso 2. Cameroon 3. Cote d'Ivoire 4. Ghana 5. Guinea 6. Haiti	7. Kenya 8. Malawi 9. Niger 10. Senegal 11. Zambia 12. Zimbabwe
Latin America and the Caribbean (6)	1. Bolivia 2. Brazil (Bahia and Ceará states) 3. Ecuador	4. Guatemala 5. Jamaica 6. Peru
Asia and the Near East (9)	1. Kazakhstan 2. Kyrgyzstan 3. Uzbekistan 4. India (Uttar Pradesh) 5. Indonesia	6. Nepal 7. Russia 8. Turkey 9. Ukraine

Examples of sustainability and institutionalization include Brazil (Ceará State), where the Secretariat of Health is now undertaking the revision/updating of the guidelines by themselves. (USAID/Population activities were phased out 2 years ago.) The SDGs developed in Bolivia are used as texts for medical and nursing education, and in Ecuador, the Safe Motherhood Program has adapted sections of the guidelines (such as the maternal health and FP sections) to develop protocols for the implementation of services.

In a number of countries—Bolivia, Ecuador, Guatemala, Malawi, Nepal and Jamaica—the guidelines are used for inservice FP/RH training, while in Brazil, SDGs were a key input into the development of performance and quality criteria for the PROQUALI project.

6. TRH has developed a number of materials to support the training and learning process. What are the strengths and challenges of the TRH approach to developing materials? How can this process be improved, if at all?

TRH uses an instructional design process to design comprehensive materials for group-based and individualized learning. The central element of a learning package is the reference manual, which is complemented by a participant's handbook and trainer's notebook (referred to as "courseware"). When developing these materials, we collaborate, when possible and appropriate, with other cooperating agencies, with technical experts at USAID/Washington, and with international organizations such as the World Health Organization. In turn, the finished product is shared with these organizations and others for their use and adaptation.

Strengths

The strengths of the materials development process are discussed below in the following three areas:

- Process
- Content
- Production and publication

Process

- The decision about whether to develop materials on a specific subject, and what content they should include, is field-driven.
- We use an instructional design process to design and develop learning materials.
- We use internal subject matter expert(s) as lead author or editor (this helps ensure that materials are consistent with our training and learning approach and development process, and that they are relevant to what is needed in the field).
- A team consisting of authors, editors and an instructional designer develops all materials.
- We collaborate with other cooperating agencies and international organizations to adapt already published materials, if appropriate (helps reduce time, costs and duplication of effort).
- Our materials undergo extensive field-testing and external review before final publication to help ensure that they will meet field needs and be used by the intended audience.
- The content of reference manuals can be used for purposes other than training (e.g., job aids, assessment/evaluation).
- One learning package can be used in a variety of training settings/approaches.
- When significant new content becomes available, we update our materials by producing a revised edition or a supplement to the original.
- We encourage feedback by including a user evaluation form in each manual.

Content

- Learning materials have clear learning objectives that define the knowledge and skills that participants are expected to acquire.
- Standardized materials help ensure consistency in the transfer of knowledge and skills and in objective evaluation of participants' performance.
- Reference manuals are written primarily for the participant, rather than the trainer. Therefore, they are a content resource on the job.
- Content in the reference manual is separate from the training methodologies and approaches.

- Clinical materials use a common structure for content that follows the way services are delivered. This expedites development of new materials or revision of existing materials. Common chapters (e.g., counseling, infection prevention) can be quickly adapted to the specific clinical procedure (helps cut time and costs).
- Materials are based on international standards (e.g., World Health Organization).
- Knowledge and skill assessments are part of the courseware.
- Courseware provides a detailed outline of how to conduct the course (helps ensure that a variety of training methods are used; improves trainer's time management; helps ensure standard delivery of training and content).
- Audiovisual materials and learning aids are developed to accompany learning packages when appropriate.
- Materials use simple language, short words and sentences. This makes them easy to adapt at the country level and speeds the translation process.
- We use simple layouts with ample white space, bullet lists and simple line drawings for graphics. Layouts are designed based on the context in which the materials will be used (e.g., small "Pocket Guides" for guidelines to be used during service provision).

Production and Publication

- We produce materials in a variety of media (print, CD, Internet) to increase cost-efficient access and ease of adaptability and use. Media are chosen based on subject matter and intended audience.
- We use Microsoft Word software to make transfer to the field for adaptation easy and fast.

Challenges of the materials development process

TRH sees two main challenges relating to the materials development process:

- Internal subject matter experts have technical assistance obligations to country programs, thus reducing the amount of time they have available for materials development and revision.
- Field-testing and external review have sometimes led to delays in finalizing.

How can this process be improved?

The materials development process itself is sound and has worked well even for joint development of materials with other collaborators. We would like to find a way to shorten development time. For instance, having dedicated subject matter experts and more lead-time would allow us to have material for new and emerging topics ready when needed.

7. TRH has developed a Training Information Management System (TIMS). How effective has this system been in collecting data? How does this system link with other local training information systems (government, NGO, and USAID)? How helpful has it been for making future decisions about training? What are the strengths and weaknesses of this approach?

In addition to housing 30 years (1972–2002) of JHPIEGO global training data in Baltimore, Maryland, TIMS has been implemented at JHPIEGO country offices in Kenya, Malawi, Indonesia, and Nepal, as well as by the following governmental agencies and partners:

- Indonesia National Clinical Training Network
- Jamaica Ministry of Health, and 4 Regional Health Authorities (RHA)
- Malawi Ministry of Health, Reproductive Health Unit
- Nepal National Health Training Center

Evidence of the success of the TIMS initiative is that in every venue where it has been set up, it is still operational, and management intends to keep using the software to track training. **Table 8** on the next page shows the types of questions that TIMS reports can assist in answering for training program personnel.

The strengths of using TIMS to track training are several:

- TIMS is a database application that runs within Microsoft Access 2000, and therefore has the system requirements of MS Access 2000 that works well in a developing country context.
  - In some instances, TRH has provided hardware upgrades to meet TIMS system requirements, but existing computer hardware at collaborating agencies is usually sufficient to operate the software.
  - The software interface is programmer-friendly. Changes such as adding or deleting data elements can be made over time as a program evolves. TRH has been improving upon the software to better meet user needs since the inception of TIMS in 1997, and we are distributing version 4.66 as of August 2002.
  - Data can be exported from MS Access to a variety of formats, and TRH has successfully used TIMS data to create trend graphs as well as maps showing training data.

- Institutions that have adopted the system have participated in user requirements research, identifying needs for further software development, to guide design specifications and programming activities. This participatory approach has meant that reports have been developed over 5 years with input from knowledgeable field staff and training program managers, with an eye toward use in decision-making. Reports can also be added over time as needs are identified.

- As part of implementation, TRH supplies training and documentation of the program to end-users. With its graphical user interface and data collection forms that mirror software screens, transfer of learning tends to go very smoothly such that data entry personnel are seen to run the program correctly on followup visits. The software interface is user-friendly, and has been found to be easy to use to enter data and run reports.

Table 8. Guide to Questions That TIMS Reports Can Answer

	To Answer These Questions	Review These TIMS Reports
Program Summaries	! How many course participants is each agency, budget or award providing training for?	! Participant Count by Funding Source and Year
	! What types of providers were trained and when?	! Training Participants by Qualification and Year
	! What courses has each training center provided, over time?	! Training Center Activity
	! Which trainers taught and which course participants attended a specific course?	! Trainers and Participants for Course
	! Which course participants have received a followup assessment of their skills?	! Listing of All Followup/ Assessment Records
Trainer Skills	! How many trainers of each rank or type has our program trained?	! Trainers by Trainer Type
	! For specific trainer skills, which trainers have we developed to which level, and when were their skills last assessed?	! Trainers by Skill Area and Type
	! What type of trainers has our program developed, what can they teach, and how can I contact them?	! Trainer Skills Review by Country
Deployment	! Where (country/province/district) do our training participants currently provide services?	! Training Participants by Qualification and Country/Province/District
	! What types (government/NGO/private) of employers do our training participants work for?	! Participant Count by Facility Sponsor and Year
	! What types of health facilities (hospitals/health centers/etc.) do our training participants work in?	! Participant Count by Facility Type and Year
	! Where are participants trained in specific areas working (province/district)?	! Participant Count by Training Focus/ Topic/ Content/ Course Name Province, District
	! Where are participants trained in specific areas working (facility name)?	! Training Participants by Facility/Workplace and Training Topic/Course Name
Professional Development	! At what stage are individuals in working toward clinical skills and trainer status and in which topics? ! Are providers attending complementary courses? ! Are providers attending duplicate courses?	! Individual Training Profile
	! What is the contact information and trainer type of an individual?	! Personal Information
	! What information is available about a participant's attendance at a particular course (assessment scores, costs, etc.)?	! Course Registration Form
	! What are the results of training followup visits for a specific course participant?	! Assessment Record for an Individual

The following are four enhancements to TIMS being undertaken by TRH in response to feedback from the field:

- As many countries are decentralizing and devolving decision-making responsibilities for training from the central to regional- or district-level health offices, TRH has been asked to set up the software in several sites and then allow the central office to merge the data from various sites into a national view of the training database. TIMS was developed as a stand-alone system, and merging capabilities were not built in originally. In FY02, we conducted a user requirements review, which showed the need to add merging capabilities. This will be completed in FY03 and the merged version will be implemented in countries where it has been requested.

- Using the TIMS application requires attention to data flow within the national training system, from data collection at the time of training through data entry, report generation, and use of reports for decision-making. Not all training program managers are initially equipped with the management skills to conform to these various responsibilities, and many national training systems do not have formalized paper-based information systems that track their training efforts. TRH has learned that we need more training materials on developing policies and procedures for TIMS implementation within organizations, in addition to the technical training and documentation we have traditionally provided. We will be developing these in FY03.

- Electronic linkages between TIMS and other software systems in governments, NGOs or at USAID are currently being developed. Difficulties that need to be overcome, before links can be programmed, include the fact that the potential for linkage rests on the availability of a matching algorithm, based on a unique person identifier to link personnel and training records between databases, (e.g., between a Ministry of Health human resource information system and TIMS). Although ID numbers are requested on TIMS data collection forms, personal identifiers other than name and sometimes birth date are not consistently entered on the TIMS data entry forms at the time of training. Efforts are underway to improve this. For example, at the Malawi MOHP Reproductive Health Unit, participants are being asked to fill in their registration ID supplied by the council that licensed them as clinicians. TRH will start to program linkages into TIMS once adequate numbers of TIMS records contain those unique person identifiers.

- The quality of data in the TIMS databases is key because it has direct impact on the utility of the reports generated. In FY02, TRH added data cleaning reports to TIMS to assist program managers in identifying missing or inconsistent data so that data managers could intervene before standard reports are run for training managers. Site visits to Indonesia, Nepal, and Jamaica collaborators using these reports on site have proven their utility. In FY03 more guidance on this process will be issued to TIMS implementing agencies.

An important aspect of TIMS that has been realized as helpful for making decisions about training is the electronic access to a range of training records (across years and across a country training program). In Kenya, for example, just the initial data entry of the MOH's training system data allowed the central-level training unit to determine, in the subsequent round of training applications, whether the appropriate candidates were being proposed for the training courses being offered. Kenya was also able to track trainer development (to meet the needs of the national integrated training system) across the 15 decentralized training centers. This allowed training managers to determine which trainers had fulfilled required courses along the trainer development pathway while planning the annual training course schedule.

8. How is the impact of training on provider performance measured? How is this information used? What evidence exists that TRH has built evaluation capacity in the countries where it works?

Impact of training has been assessed in a variety of ways, from establishing the reduction in training time achieved through use of a training modality (e.g., structured on-the-job training vs. group-based training) to clinical observations of provider skills. TRH uses a variety of methods to assess provider performance both during training and at the worksite. Our approach to training is competency-based. Students and trained providers are evaluated through pre- and midcourse assessments and through observation of clinical skills, using competency-based checklists, both during training and during followup visits to clinic sites. These skills checklists include interpersonal and clinical indicators (e.g., IUD insertion skills).

Our evaluation findings are used in a variety of ways as follows:

- To raise awareness about clinical issues: For example, in Nepal, findings from our PAC evaluation revealed inadequate management of pain during the MVA procedure, motivating trainers to revise the training to put more emphasis on this issue.

- To make decisions about training modalities: Our evaluation of the structured OJT no-scalpel vasectomy training in Nepal revealed that providers could learn and perform effectively using this training approach.

- To design further interventions: Our evaluation of "high performing sites" in Kenya revealed that, among other factors, having an effective supervisor in the clinic resulted in improved performance. These findings led to the development of an intervention (currently being implemented) to strengthen supervisors' skills in a number of selected clinics. An assessment will be made of intervention impact early in 2003.

- To scale up programs: The evaluation of the Technology Assisted Learning Center (TALC) in Bolivia revealed that faculty used the TALC to access numerous reproductive health resources and websites to enhance their teaching and to make improvements to reproductive health course materials. Ninety percent of faculty responding to our survey used the TALC to search for updated/current information on the Internet. Lessons learned from this evaluation will be used to implement new TALCs in Malawi and Kenya.

In all of our evaluations, incountry counterparts are included in the design, implementation and analysis phases. These counterparts include local trainers, JHPIEGO country staff, staff from the MOH and from medical and nursing schools. In all of the evaluations described in the various responses above, we have built in evaluation capacity as part of the implementation of the evaluation. Thus, TRH has developed capacity in Bolivia, Jamaica, Nepal, Kenya, Indonesia, Turkey, Uzbekistan, Uganda, Morocco and many other countries. This resulted, in Ghana, for example, in midwifery-nursing school trainers who participated in evaluations in Ghana and Zimbabwe developing and implementing their own followup forms for the new midwifery training program. In addition, JHPIEGO incountry staff members have developed their own monitoring and evaluation tools.

We have found that the act of training, planning and implementing an evaluation changes the behavior of country partners. For example, taking stakeholders to field sites in preparation for evaluation implementation provides them with an opportunity to make comparisons between sites in how policies and procedures are being carried out, thereby affecting their attitudes and motivations to change the programs or conditions they are seeing.

Finally, our evaluations have also generated interest by other CAs. For example, following our assistance to the MOH in Kenya to revise the national FP standards and guidelines, FHI developed a study to assess the most effective strategy for dissemination, based on our dissemination intervention. Also in Kenya, FHI followed up our high performing sites evaluation with an intervention to compare two approaches to improved supervision. In conjunction with three other CAs, JHPIEGO took the lead to develop a two-phase study in four countries in Francophone West Africa to assess the integration of HIV/AIDS information into national FP and RH guidelines. Phase I, which reviewed national FP and RH guidelines in Benin (Intrah), Senegal (Population Council), Mali (FHI) and Niger (JHPIEGO) has been completed. In Phase 2, interviews about the use of the guidelines are currently underway in each of these countries with approximately 100 providers who are currently working at the clinic level.

9. How and to what extent are the TRH guidelines and protocols being used? What is the evidence of this?

TRH guidelines and protocols serve as the foundation for many TRH country programs. A prime example is Malawi. TRH worked with the Ministry of Health and Population (MOHP) in Malawi from 1999 to 2002 to develop, finalize, launch and disseminate the most comprehensive RH guidelines document ever produced by the MOHP. *The Malawi Reproductive Health Service Delivery Guidelines* include detailed information on all family planning methods available in Malawi as well as chapters on other RH services/topics, including PAC, adolescent reproductive health, STIs, HIV/AIDS, prevention of mother-to-child transmission, prevention of cervical and breast cancer, infection prevention and other topics. These guidelines are being used by clinic staff throughout Malawi in the provision and supervision of RH services.

These guidelines have been incorporated into preservice RH curricula (they have been referenced in the preservice RH learning package and copies have been provided to all schools for their libraries) as well as into inservice FP training materials. In all three regions in Malawi, healthcare providers from government, mission, para-statal and private institutions have been trained and have been provided with an orientation package, based on the guidelines, for the purpose of training their colleagues on the job. Once district-based RH Coordinators are posted throughout the country—an initiative that is in process—they will be trained in the use of the guidelines and will develop a brief checklist to use in monitoring adherence to the guidelines during their routine supervisory visits.

In addition to the service delivery guidelines, in response to an MOHP request, USAID/Malawi provided funding to TRH to work with the office of the Controller of Nursing Services, MOHP, in collaboration with the national quality assurance task force, to develop national infection prevention standards as part of a performance improvement effort. The standards were originally developed in October 2001, field-tested in February 2002 and approved by the MOHP in March 2002. These standards are linked to a recognition system that will "reward" service delivery sites for meeting an established number of criteria defining high quality infection prevention practices. This project is being implemented in seven hospitals—all four MOHP central hospitals, one MOHP district hospital and two Christian Health Association of Malawi hospitals.

Although the MOHP and TRH are in the early stages of the project, improvements in infection prevention practices have already been noted within the pilot hospitals. These changes—improvements in decontamination of medical equipment using a chlorine solution, change in traffic patterns, improved handwashing that hospital personnel implemented based on the document outlining the national infection prevention standards—have occurred with no external technical or financial assistance from either the MOHP or TRH. Use of the national standards as a self-administered tool has ensured continued application of the standards on the job.

TRH Guidelines and Protocols are well integrated into many other country programs as described in the following examples:

- *Burkina Faso*: TRH held a workshop to elaborate the PAC portion of the guidelines and protocols with Burkina Faso's Reproductive Health Research Cell (CRESAR—la Cellule de Recherche en Santé de la Reproduction) and members of the Burkina Faso MOH. Subsequently, TRH worked with the MOH to integrate PAC protocols officially into the guidelines and protocols, and to disseminate these updated guidelines to healthcare providers who were trained in new PAC techniques. TRH has also collaborated with SFPS to work with the MOH and local NGOs such as CRESAR to develop job aids, based on the guidelines and protocols for use by healthcare providers.

- *Ghana*: The national protocols are available and used in all health institutions in the country. Results from the recent level 3 training evaluation conducted in Ghana indicate that a majority of practicing midwives are aware of the existence of the guidelines and protocols and use them.

- *Haiti*: TRH collaborated with the MOH and MSH to develop FP/RH service delivery guidelines. These guidelines received official endorsement by the MOH and continue to be utilized nationwide. PAC protocols have also been developed in Haiti by TRH, working with the MOH, and are being widely utilized by healthcare providers.

- *Indonesia*: The STARH bilateral project used the Jamaica family planning service delivery guidelines developed with TRH assistance as a resource for consolidating and updating Indonesia's national FP service delivery guidelines.

- *Nepal*: Guidelines and protocols developed with TRH assistance are the basis of all national training materials for FP, and have been used to develop integrated monitoring checklists that are used by the national quality of care management center. These efforts will be continued under the new bilateral project in Nepal.

- *Kenya*: Guidelines and protocols developed with TRH assistance are being used by Kenya's Ministry of Health. They have been widely distributed and disseminated. Clinical preceptors, preservice tutors and inservice trainers in the MOH make extensive use of training guidelines found in the *Clinical Placement Guide*, which is a collection of all FP/RH-related learning guides for preservice education. Other training organizations use TRH standards and checklists. For example, the Centre for African Family Studies (CAFS) uses the TRH Clinical Training Skills as its standard in its regional training of trainers' courses. TRH clinical protocols in the form of job aids (e.g., pregnancy checklist—jointly with FHI) are being used extensively in Kenya by both the MOH and nongovernmental organizations.

10. What TA does HBCU staff provide to TRH field programs? What evidence exists to indicate that the Historically Black Colleges and Universities (HBCU) initiative has been effective? Are there other ways TRH could link with HBCUs? If so, what are they?

Under the auspices of USAID's Historically Black Colleges and Universities (HBCU) Initiative, TRH is assisting staff and faculty of Charles R. Drew University of Medicine and Science (Drew) to develop and serve as international reproductive health (RH) technical resources. An important aspect of the TRH training is providing opportunities for the HBCU staff to participate in international RH education and training activities, through which they are able to acquire experience working in an international setting and receive coaching by JHPIEGO senior trainers.

In the last year, Drew faculty who have participated in TRH training have provided TA to field programs in Jamaica, Indonesia and Peru, as follows:

- Jamaica: Clinical trainers have assisted with a training needs assessment, a contraceptive technology update workshop, a clinical training skills course, and instructional design course
- Indonesia: Clinical trainers have co-trained with JHPIEGO staff in conducting an infection prevention course and clinical site visits
- Peru: A clinical trainer co-trained with JHPIEGO staff in conducting a clinical training skills course

In addition, beyond collaboration on TRH activities, a clinical trainer from Drew has worked in Nicaragua, under a contract with Intrah/PRIME, to conduct a 2-week training of trainers course.

As a result of interventions with Drew (project planning meeting, strategic planning workshop and workplan development seminar), that university has completed the following activities that also illustrate the benefits and effectiveness of the initiative:

- Reconstituted its International Health Institute (IHI)
- Developed an IHI homepage on the Drew website
- Designed and produced a brochure describing its international health activities
- Secured funding from USAID to provide technical assistance in the area of HIV/AIDS in Angola
- Has been collaborating with UCLA to host an international HIV/AIDS conference in October 2002

When the HBCU Initiative was initiated in 1994, JHPIEGO entered into a collaborative relationship with the Morehouse School of Medicine. At the conclusion of this formal relationship, Morehouse was able to undertake a number of international health activities. The following are illustrative of the benefits of the partnership:

- A 5-year contract with Bristol Myers Squibb to conduct seminars and faculty exchanges in the area of HIV/AIDS with Medunsa University in South Africa (1998)
- A contract with the Centers for Disease Control and Prevention (CDC) to provide technical assistance in HIV prevention and service delivery to several developing countries, including Zambia (2000)
- Coordination of the International Reproductive Health component of the Africa-African American Summits held in Zimbabwe (1997) and Ghana (1999)
- Partnership with Emory University and Grady Memorial to provide training needs assessments and program evaluations in Georgia and Uzbekistan (2002)

TRH is currently working with the Minority Health Professions Foundation (MHPF) and Howard University Department of Continuing Education to plan a major conference "International Reproductive Health Challenges, Priorities and Opportunities for Historically Black Colleges and Universities" scheduled for November 2002. The mentoring relationship between TRH and

MHPF is expected to grow in the next year. TRH also plans to explore new relationships shortly with other HBCUs such as Meharry University and Coppin State College.
A linkage established with Morgan State University in March 2002 has resulted in a request to TRH to identify a consultant to facilitate the strategic planning process at that University's International Health Program to start, with funding for the activity being provided by Morgan.

In the future, other options that could be explored to strengthen the TRH linkage with HBCUs include:

- Seconding staff from HBCUs to work at JHPIEGO for up to a year. This might entail a 3-month internship attached to a TRH program in Baltimore, and a 9-month placement overseas in a TRH country office.

- Providing internships for graduate students from the HBCUs to work in TRH programs both domestically and internationally.

Finally, through its relationship with the MHPF, TRH will continue to link with other HBCUs and will continue to explore opportunities for joint funding of this initiative, not only from the USAID Population Office, but also from other USAID offices as well as external donors.

11. What are the strengths and weaknesses of the TRH approach to developing and disseminating national clinical guidelines and protocols? What evidence exists to indicate that TRH developed the capacity to develop and/or revise national clinical guidelines and protocols in the countries in which they have worked? What evidence exists to indicate that TRH has been effective in changing national training/service delivery policy? Provide specific country examples.

The World Health Organization and other CAs have recognized TRH as a leader in the development of standards and guidelines internationally. At the country level, TRH has a strong reputation for capably facilitating the revision of guidelines and for providing the appropriate technical expertise to undertake the task. Examples include:

- WHO has invited TRH staff to participate in a number of technical expert meetings. Recently, Dr. Dipo Otolorin and Dr. Pamela Lynam contributed to revising the WHO Medical Eligibility Criteria "Improving Access to Quality Care in Family Planning."
- Other CAs have also tapped TRH's expertise in guidelines development. For instance, URC invited us to develop FP guidelines in Jamaica.
- In Nepal, TRH was the lead CA in the revision of the family planning service delivery guidelines.

Building on our recognized technical expertise in this area, additional strengths of the TRH approach to developing and disseminating national clinical guidelines and protocols include:

- *A focus on cross-sectoral participation.* TRH always develops guidelines, standards and protocols in collaboration with key stakeholders who represent a broad range of institutions influential in changing policy and reinforcing clinical practice. This ensures that the product is truly national.
- *Developing key stakeholders as technical experts critical for dissemination.* In the process of providing technical updates and reaching consensus on the content of national guidelines, the participants become critical resources in the dissemination of the updated guidelines.

TRH has developed and tested specific approaches to foster the successful dissemination of guidelines. In Kenya, for example, we used the national decentralized, integrated training system to rapidly disseminate the national FP/RH guidelines to healthcare providers in every district in the country through a series of updates followed by support supervision visits at their sites. Preparing providers attending the RH updates to orient their colleagues to new information has a strong impact on retained knowledge of site-based providers and stated FP service provision practices. The work in Kenya demonstrated that an active rather than passive strategy for the dissemination of guidelines results in more positive outcomes. The strategy relied on a "cascade" effect, updating providers, and giving them the means to update their colleagues. The evaluation gives the most clear-cut evidence in Africa to date that family planning service delivery guidelines, when correctly disseminated, can improve practices, thereby improving client outcomes, reducing costs and standardizing practices.

Using a performance and quality improvement process, TRH has also established and operationalized standards within healthcare facilities. Building on the TRH experience in Brazil, we are strengthening infection prevention practices in Malawi to ensure a clean and safe hospital environment for clients, providers and the community. The initiative began with the development of evidence-based operational standards for relevant areas of hospital care that included an assessment tool approved by the MOHP. Local healthcare workers are empowered through the use of the assessment tool to conduct self-, peer, and internal assessment of the facility, and identify performance gaps that need to be reduced or eliminated (gaps that can be related to lack of knowledge and skills, an adequate enabling environment, motivation, or a combination of these factors). Trained teams analyze the causes of the performance gaps and then work in coordination with facility managers, providers, workers and the district health officials to correct these performance gaps.

The model uses a bottom-up approach, promoting local teamwork, community involvement and the development of supportive networks as essential elements of the implementation process. Additionally, a recognition system is being discussed by the MOHP to foster motivation around this initiative. To date, baseline assessments have been conducted in the seven participating hospitals and encouraging initial improvements have already taken place in areas such as laundry, food preparation, waste disposal, decontamination, and housekeeping. To continue this process and close the still significant gap in quality, TRH is supporting the active exchange of experiences among participant hospitals and supporting specialized technical support.

The classic TRH approach is to incorporate updated revised guidelines into national preservice education and inservice training systems as the foundation for the content of all training and education activities. In Ghana, although TRH was involved only in the early development of the documents, the team that eventually completed the process came out with a product that is now being used in all the health institutions countrywide. With TRH assistance, the guidelines provided the basis for updating midwifery school faculty, and revising the national midwifery school curriculum. Outside the preservice education arena, the documents were so well accepted as useful and important that the government ensured their distribution not only to nurses and doctors for their use but to all other categories of health workers including security personnel, receptionists and orderlies. These documents now serve as a national RH reference guide and as the basis upon which all other RH documents are developed. For example, the MOH and Nurses and Midwives Council (NMC) has used the protocols in the development of the RH Guide, which is a supplement to the Midwifery Curriculum. The Ghana Health Service is also currently using them to develop a document on how to manage obstetric emergencies in the country.

In Nepal, the ownership for the national standards and protocols rests with the Family Health Division (FHD). TRH support to this process of guidelines development and dissemination really fostered this ownership and as a result, FHD uses these documents as the basis of their technical and programmatic discussions with various donors and programs. TRH was instrumental in advocating for nurse provision of MVA services and worked in close collaboration with the DFID-funded Nepal Safer Motherhood Program to push for this policy change. Without this effort, MVA procedures would be conducted by physicians only and therefore would be inaccessible to most women in Nepal.

Two Technical Reports (JHP-08, *Documenting the Reduction of Medical Barriers: A Desk Review of Reproductive Health Service Guidelines in Four Latin American Countries* and JHP-11, *JHPIEGO's Work in Policy: A Comprehensive Review*) provide further discussion of the TRH approach to developing guidelines. A weakness of the approach at the beginning of TRH was inadequate attention to the realities of dissemination, that is, effectively putting the guidance into practice. TRH has rectified this by:

- Developing dissemination plans as part of the process of developing or updating clinical guidelines themselves
- Field-testing draft versions (e.g., Jamaica, Malawi, Zimbabwe) to check for ease of comprehension, ease of use and consistency with the reality of service provision
- Disseminating the results from the Kenya study about efficient and effective cascade updates enhanced by support supervision to ensure that providers use the updated guidelines in service provision

12. Are the current TRH evaluation indicators relevant? How should they be changed? Is the information learned from TRH evaluations(s) rolled into future TRH programming activities?

The current TRH indicators, which focus on competent providers performing to standard and strengthening national training systems, are relevant for the Training Results Framework (CMT Division/Office of Population) that underpins the TRH cooperative agreement.

Since 1998, however, TRH efforts and activities have evolved to include new areas such as supervision, performance improvement and the transfer of learning. Our activities have expanded to address how the work environment affects the ability of providers to retain their skills after training is completed; thus sub-indicators may be added to more fully capture the wider scope and overall impact of TRH's work. For example, indicators such as the following three may additionally reflect the activities we conduct in support of sustaining provider competency:

- number of supervision systems strengthened
- number and kind of worksite Performance Improvement Initiatives undertaken
- number of participating clinical sites completing Quality Improvement projects

Lessons learned from evaluation studies are used to design and modify curricula, inform standards and guidelines dissemination strategies and advocate for alternative training methods that save time and money. They have also informed our shift from inservice training to preservice education. The PAC evaluation in Nepal, for example, has shown the effectiveness of the structured on-the-job training approach, and subsequently this approach was used in the Nepal (NSV) and Zambia (PAC) training programs. In Kenya, we learned from a clinic performance analysis that on-site supervision, as compared to external supervision, has the most direct impact on the quality of services. We then developed a supervision learning package to improve on-site supervisor performance. This learning package will be used in Ghana and elsewhere.

Information from various evaluations and other reviews has also been taken beyond TRH into other programs funded by USAID as well as other donors. TRH technical expertise in preservice education has been adopted in other awards, both at a global level in approaches, materials and technical experts, and in specific country and regional programs, for example:

- The SFPS Project (regional preservice education, Benin)
- The MNH Program (Indonesia, Honduras, Zambia)
- DISH 2 (Uganda)

Trainers in our international network covering more than 50 countries are also used by other programs and host-country governments and are seen as a resource beyond the TRH project. (See Samarkand case study.) Within the SFPS project, for example, JHU/CCP and FHI use consultants trained by SFPS/JHPIEGO to conduct training in FP counseling, and care and support for people living with HIV. In Nepal, under the new JSI-led bilateral, the competency based training packages developed by TRH continue to be utilized. UNFPA in Burkina, Togo, and Cameroon is using experts in training developed by SFPS to train their healthcare providers. GTZ is using SFPS-developed experts in Togo, Burkina, Cameroon to train healthcare providers. TRH technical expertise and approaches have been taken up by and established in other awards, both at a global level as well as in specific country programs as shown in **Table 9**.

Table 9. Elements of TRH Taken into/Used by Other Projects and Awards

TRH Element	Project Name	Location
PROQUALI (derived from Gold Star in Egypt) methodologies for PI and accreditation	SFPS	West/Central Africa
	STARH	Indonesia
	DISH-2	Uganda
Performance Improvement strategies	STARH	Indonesia
	MNH Program	Guatemala, Honduras, Indonesia, Burkina Faso
Structured on-the-job training (OJT) and other self-paced learning approaches	Nepal Family Health Project	Nepal
	The MNH Program	Indonesia, Zambia
M&E tools and approaches	Global Fund Support	Ukraine
	Benin HIV/AIDS Prevention Project	Benin
Cascade training for standards and guidelines dissemination	FHI IMPACT for VCT guidelines dissemination	Kenya
	DFID funding for malaria in pregnancy guidelines dissemination	Kenya
Information Systems	ProTrain, a modeling tool for projecting FP training needs	taken up by 3 provinces in Indonesia
	ProTrain taken into Spectrum (TFGI product of a range of modeling software)	Global
Materials		
• Guidelines for Performing Breast and Pelvic Examinations	WHO distributed Russian translation to participants in a Clinical Training Skills workshop conducted in Geneva	
• Clinical Training Skills manual and training package	Adapted by the Bill and Melinda Gates Institute for Population and Reproductive Health at JHU Bloomberg School of Public Health to develop a "leadership training skills" manual and learning package	
	Used by WHO for a workshop conducted in Geneva for doctors and midwives from the FSU	
	Adapted by an incountry NGO; training conducted in Odessa region with MOH approval.	Ukraine
	Used by Ipas and AMKENI (the bilateral project)	Kenya
	Sampling of external buyers: AED, AVSC, CARE, DA, FHI, Ipas, JSI, PATH, Save the Children	
• Comprehensive Family Planning curriculum (based on and used with the clinical reference manuals: IP, IUD, PocketGuide)	Used by UNFPA for inservice training of service providers (1998–99)	Ukraine
	Used by MSH for inservice training of service providers	Georgia
	Used by the Zrav Reform Project (consortium of Abt, JSI and INTRAH) for pre- and inservice medical and nursing/midwifery education. They are also using the PocketGuide, Clinical Training Skills and Advanced Training Skills manuals.	Central Asian Republic
	Used by UNFPA in pre- and inservice midwifery and medical education along with the manuals	Turkey

13. What are the key findings from TRH country evaluation activities? How are these findings disseminated? Is the method of dissemination effective? What implications do these findings have for the future?

TRH country evaluations have taught us that:

- A variety of learning approaches work in low-resource settings.
- Competency-based training results in competent providers across a variety of cadres and across a variety of content areas including HIV/AIDS and community-level work.
- The opportunity to practice in the classroom and on anatomic models increases providers' competence and decreases training time and costs.
- Alternative training approaches like structured on-the-job training and computer-assisted learning programs like ModCal® are as effective in transferring skills and knowledge as group-based training approaches and can be cost-effective.
- Maintaining new skills depends on a variety of conditions including supportive supervision, an enabling work environment with sufficient supplies and resources, and opportunities to use new skills after training.
- With adequate investments, competency-based training methods can be institutionalized and sustained in national training programs in preservice medical, nursing and midwifery education programs, thereby "graduating" them from further TRH technical assistance.
- For service delivery guidelines to be more effectively disseminated requires an active orientation of a few staff in order to realize an "echo" effect in their own clinics. Lessons learned from our SDG study in Kenya now informs our current strategies through the MAQ initiatives.
- Evaluations have validated TRH's shift from inservice training to preservice education as well as our more integrated approach to transfer of learning.

Findings are disseminated through a variety of channels. USAID field missions, the MOH and other stakeholders are debriefed on initial findings and incountry collaborators assist in finalizing reports. Internationally, presentations are made at conferences and meetings such as the Global Health Council and American Public Health Association annual meetings. We disseminate information about our programs through our website, electronic listservs, CD-ROMs, presentations at USAID and other venues, with "Brown Bag Lunches" open to the CA and USAID community, and through technical reports and briefing documents. The TRH conference held in May 2002 "Training: Best Practices, Lessons Learned and Future Directions" provided another opportunity for widespread and effective dissemination of results. To further the dissemination of program results, articles by TRH staff are also regularly published in technical journals. The articles listed below are illustrative of TRH use of this dissemination medium.

- Sullivan RL.1998. *The Transfer of Skills Training.* American Society for Training and Development; Alexandria, Virginia.
- Sullivan RL, S Brechin and M Lacoste. 1998. Structured on-the-job training: Innovations in international health training, in *Linking HRD Programs with Organizational Strategy*. Rothwell WJ (ed). American Society for Training and Development; Alexandria, Virginia.
- Sullivan RL and JL Wircenski. 2001 *Effective Classroom Training Techniques.* American Society for Training and Development; Alexandria, Virginia.
- Curran K, N Maier and T Norton. 2001 Realizing the possibilities: A technology-assisted learning center at Universidad Mayor de San Andres, La Paz, Bolivia. *TechKnowLogia* March/April: 36–38.

A measure of the effectiveness of our dissemination methods is that TRH technical expertise is recognized internationally. TRH trainers are frequently asked to give presentations and provide competency-based training domestically, regionally and internationally.

Implications for our evaluation findings are that our training approaches to strengthen service delivery are sound and our areas of expertise in family planning and reproductive health remain highly relevant. But there is an urgent need to expand the sphere of TRH activities beyond training to ensure the transfer of knowledge and skills to improve performance on the job.

The key findings of our evaluations have been included in responses to Questions 1, 2, 3 and referred to as well throughout responses to other questions.

14. Please provide an organization diagram of JHPIEGO. How effective is the JHPIEGO organizational and management structure in achieving TRH results? How appropriate is it for decision-making that affects the TRH project? How does the JHPIEGO organizational structure monitor the quality of TRH's work?

JHPIEGO underwent a management restructuring process in 2000 to integrate TRH, MNH and our other major awards into a single, global organizational structure. Our objective was to improve program planning, coordination and communications to support an integrated, matrix structure that will mobilize and organize resources effectively and efficiently across all of JHPIEGO's awards and programs and support our growing network of international field offices.

The new leadership structure preserved JHPIEGO's office-based organizational structure and grouped the offices into four basic areas:

- Corporate Operations (including the Program Directors for our four major programs)
- Program Operations (including the Regional and Country Offices)
- Technical Operations (including the Technical Support Offices)
- Administrative Operations (including Organizational Support Offices)

The Corporate Operations area is responsible for the development of long-term program strategy and coordination among JHPIEGO's various awards in order to maximize potential synergies and linkages across programs and geographic areas. Within the Corporate Operations structure, the TRH Director reports directly to the newly appointed Chief Executive Officer (CEO) of JHPIEGO. The CEO position reports to the Provost of Johns Hopkins University.

The Program Operations Area includes the organization's country field offices and regional offices in Baltimore and is, therefore, the "distribution channel" for JHPIEGO's awards and project activities. Technical Operations provides products and services (human and non-human) needed by country programs to develop and implement FP/RH programs. Lastly, the Administrative Operations area provides information technology, human resources, financial and accounting, contracting, and other administrative support services to our Baltimore headquarters and country offices.

The TRH Director and Associate Director provide oversight of TRH core- and field-supported projects. TRH is implemented through the regional and country offices, or in the case of global initiatives, through the technical support offices. TRH programs are planned jointly with the USAID field missions, the national partners and the JHPIEGO country offices.

TRH projects and activities are implemented by JHPIEGO's global network of field offices with direct guidance and support from TRH Award Management, the Vice President for Program Operations, Regional Office Team Leaders and the appropriate country team. The country team directs program implementation for TRH activities at the field level and coordinates input of technical and administrative resources and assistance as necessary from the technical and administrative operations areas respectively. In addition to the TRH management team, support offices for technical and administrative operations assist TRH with monitoring, research and evaluation, development and production of materials and consultants, information technology, financial management, contracting and human resources.

The adoption of this integrated matrix organization promotes both program and management synergies and efficiencies. From a program perspective, it ensures necessary and appropriate coordination of technical and program resources and strategies across all awards. It also ensures that support resources and costs are shared equitably across programs, allowing us to achieve economies of scale that would not be possible under either award on its own.

The decentralized decision-making structure nevertheless maintains sufficient resiliency and internal control to ensure effective management. Country representatives and Program Managers report to their Regional Team Leaders on a weekly basis, and TRH Award Management has monthly program reviews with Team Leaders and their staff. Informal briefings are quite routine on topics of immediate interest, and Award Management is in the forefront of coordinating developments in key areas such as postabortion care, HIV/AIDS, male circumcision, implementing best practices in training and expansion to new countries. The monthly updates with each regional and technical office include a financial review to ensure that these resources are effectively managed. Thus, not only is JHPIEGO now structurally more responsive to field needs, but we are able to more readily identify weaknesses and to more quickly remedy these than in the past.

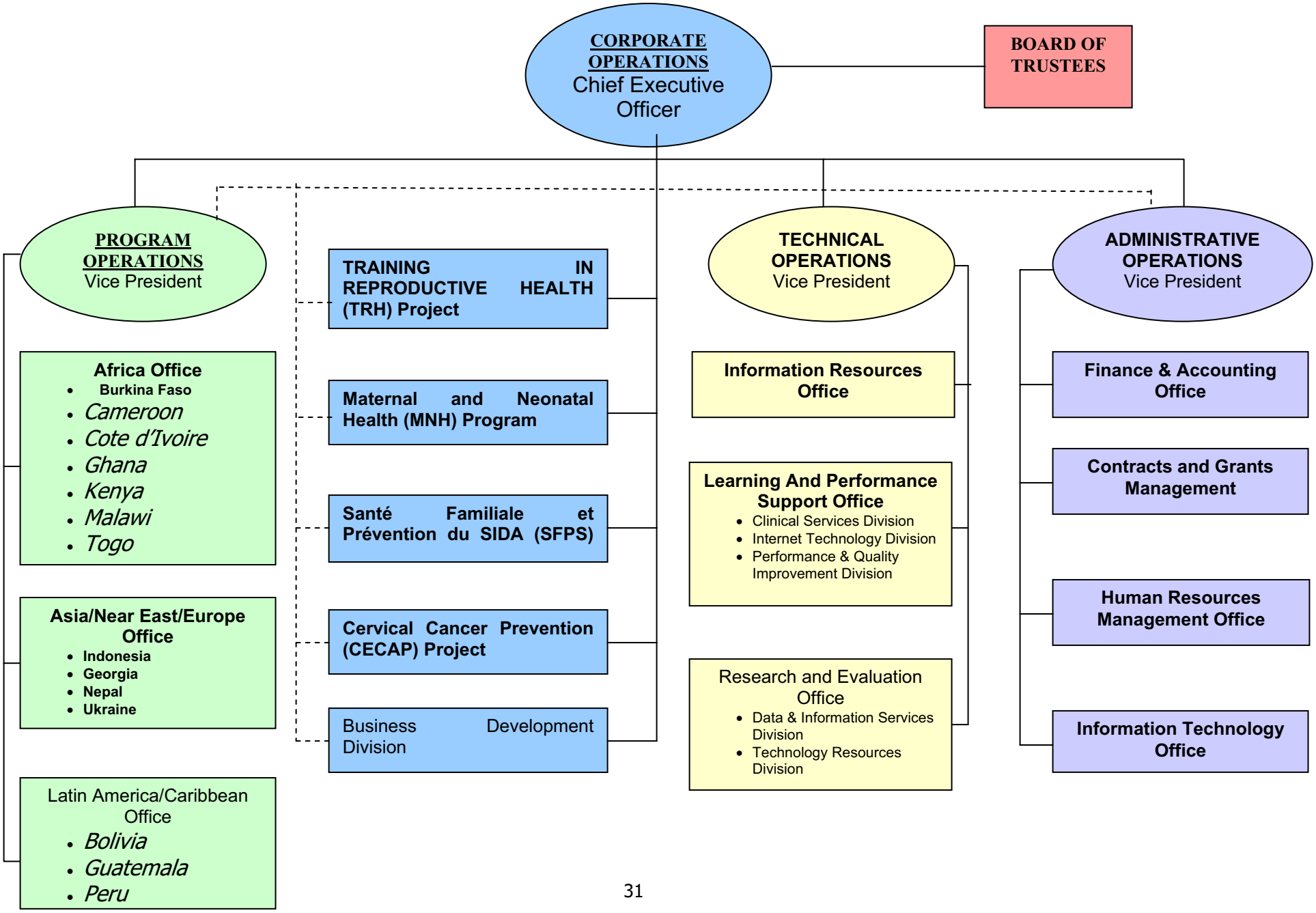
Programs are reviewed on a quarterly basis with senior management. The Quarterly Reviews provide an opportunity for Vice Presidents and Award Directors to meet with Regional Team Leaders and heads of core-funded initiatives to review program accomplishments and monitor the status of expenditures versus budget projections, and to take a strategic look at the direction the organization is moving in as well as our accomplishments.

The organizational structure that has been established, together with its supporting systems, has proven very effective for the implementation of the TRH project. While day-to-day project decisions are the responsibility of the TRH Award Director, a strong JHPIEGO Management Team is in place, which allows the Award Director to discuss program interventions and strategies with other senior-level health professionals.

The JHPIEGO organization chart is included on the following page.

JHPIEGO Organizational Diagram

(Matrix Management Relationships)

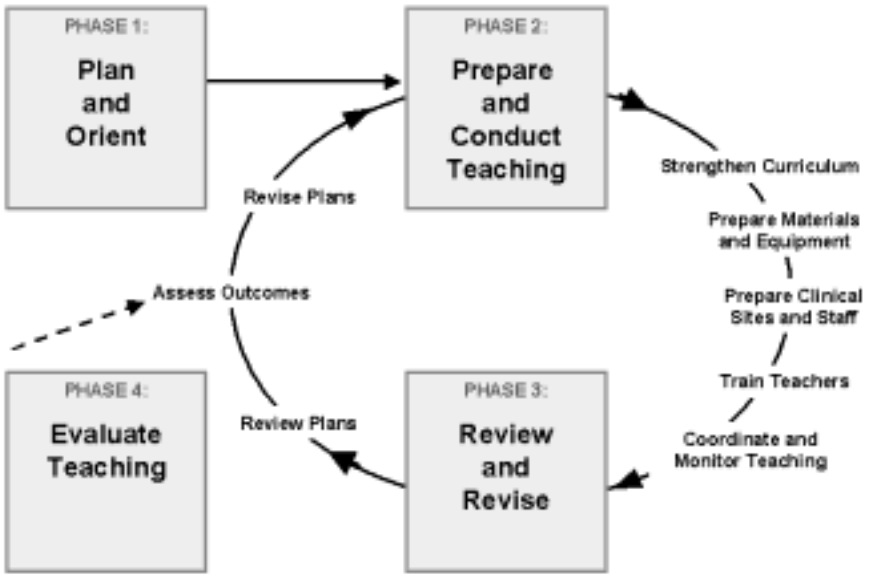


15. Assuming the emphasis on preservice education was to continue, how could the TRH approach be modified, if at all, to better meet the needs of country programs and systems and improve the impact on FP/RH service delivery?

TRH strongly supports a continued and increased emphasis on preservice education. Without minimizing the importance of inservice training, preservice education is a sound way of implementing sustainable and, in the long term, economical training systems. Having graduates who have the necessary skills to immediately begin providing services upon graduation allows a more rational use of the inservice training system by having it focus on new and updated knowledge and skills.

Based on our extensive experience in preservice education programs, TRH has developed the **Preservice Implementation Guide: A Process for Strengthening Preservice Education**. TRH staff use this process to work with national and institutional stakeholders to strengthen preservice education.

The following figure shows the phases of strengthening preservice education.



We continually refine and modify this process based on lessons learned from the field. For example, experience to date shows that our future efforts should include:

- more focused attention on strengthening clinical training sites using a performance improvement approach together with continual reinforcement of the linkages between clinical training and service delivery

- improving access to computers and the internet for faculty and students to permit immediate and ongoing access to updated RH/FP information

- ensuring a strong understanding of the curriculum-strengthening **process** itself, so that the process can later be applied to other areas of the curriculum (e.g., IMCI, HIV, STDs, MCH) by the institutions themselves, with limited external assistance. Experience has shown that beginning with a more defined portion of the curriculum such as FP/RH is more effective than trying to strengthen all content areas simultaneously; however, the need for

strengthening related areas should not be overlooked.

Finally, TRH should work towards obtaining consensus of this process as the international strategy for strengthening preservice education. Sharing the process at a variety of international conferences, meetings and other venues has begun under the current TRH cooperative agreement, and will need to continue in a systematic manner in the future if we are to increase the reach and impact of this preservice strengthening process.

Ongoing collaboration with WHO and regional institutions such as the Regional Centre for Quality of Health Care in Uganda is an important step in the consensus-building process. This collaboration is already well under way with WHO, with whom JHPIEGO is collaborating on the development of a preservice education teaching skills package **(See Attachment II)**. The expected completion date is late 2002. We plan to collaborate with WHO in implementing the process and materials in the field.

The preservice RH/FP education systems strengthened by TRH produce graduates who have acquired essential knowledge and clinical skills through a competency-based learning approach, and are able to provide FP/RH services immediately upon graduation. However, once they are deployed to their workplace, new graduates often face constraints that limit their ability to provide quality services. Therefore, it is crucial to support the healthcare system components that protect and promote the investments in education and training. We must, in the future, contribute to the broader human resources development system through focused efforts in planning, deployment and performance support, as TRH is doing currently in Malawi.

Examples of components of the system requiring focused attention include:

- Accreditation
  - Preservice education institutions
  - Healthcare delivery sites (particularly the clinical practice sites)
- Regulation
  - Strengthening the capacity of regulatory bodies to ensure minimum standards for both training institutions and service delivery sites
  - Licensure of healthcare graduates
  - Certification or re-licensure of healthcare professionals (e.g., continuing medical education)
  - Developing and implementing plans for continuing education systems with regulatory bodies
- Workforce development
  - Development of comprehensive workforce development plans that coordinate the needs of practicing providers (inservice training) and students completing their education (preservice education)
  - Rational deployment of new graduates
  - Capacity building for institutions that prepare teaching staff (faculty, clinical instructors, clinical preceptors) to ensure institutionalization of the competency-based approach at the highest level possible
- Ensuring and strengthening linkages between preservice education, inservice training and the service delivery system:
  - Developing initiatives to strengthen the quality of supervision and planning for inservice training
  - Developing a structured clinical preceptor system (development of selection criteria for preceptors, knowledge update/skills standardization for preceptors, monitoring and evaluation of process)

- Strengthening an integrated training systems approach through coordination and linkages in preservice education and inservice training, especially at clinical practice and other service delivery sites

Working with stakeholders to strengthen these areas will create a quality continuum – from new graduates with up-to-date knowledge and skills and a license to provide services at an accredited healthcare delivery site to the practicing provider participating in continuing education to maintain not only a license, but to improve knowledge and skills in order to continue to provide quality services.

16. Since the beginning of the TRH agreement, field support has declined. Please describe the reasons for this?

In the period since September 1998 when the current TRH cooperative agreement was approved, the cumulative split between field support (FS) and core allocations is 57.8% FS and 42.2% core. Over the last few years, the ratio of field support to core obligations has declined. Even though there has been a marked increase in the field support allocations from several countries where TRH works, notably Jamaica, Zambia, Malawi and Ghana, and we will be opening new programs in South Africa and the Philippines in FY 03, the fact that TRH is in fewer countries than in previous years dictates that the gross amount of field funding will decline. The reasons for this situation are diverse:

- Some countries, Brazil for example, in which TRH has had significant programs, have now graduated from AID assistance in their population sectors.

- There is a trend by USAID Missions toward developing bilateral programs rather than buying into established global awards such as TRH. Indonesia, Nepal, Peru, Uganda, Kenya, Georgia and Uzbekistan are prime examples in this regard. Since many of the bilateral projects have adopted many TRH innovations and products (see **Table 9**) they in fact displace field support funding that otherwise might have been invested in TRH. Further, USAID Missions seem to be incorporating most of their health and population programming into major "one-stop-shop" bilateral projects, through which multiple cooperating agencies provide services under a single award.

- In some countries, JHPIEGO is its own competition. The other major JHPIEGO project, Maternal and Neonatal Health, has in FY2002 received funds for activities very similar to those conducted in previous years by TRH. For example, the very large MNH program in Indonesia, which is now funded at more than $5 million per year, was started under TRH. In Honduras and Guatemala, the Missions have indicated that they did not wish to invest in two separate JHPIEGO projects.

- There is a perception by some USAID Missions that TRH is expensive. Some have indicated that they are willing to apply the available funds to less expensive alternatives, even if somewhat lower quality products are thereby obtained. Many USAID field missions have also expressed an unwillingness to invest in the cost for development of innovative and cutting edge products, and have shown a preference for tested and proven tools (**Table 9**) that have been developed under core funding.

- Missions have been reticent to support one of TRH's major initiatives: preservice education. While preservice education is an important TRH initiative and fundamental to building sustainable training systems, many USAID Missions do not see the need for supporting preservice education programs. In part we believe that this is because it is difficult to demonstrate immediate results—needed by Missions for portfolio reviews—coupled with the fact that preservice programs require more intensive investments initially than many inservice training programs do.

Declining field support is seen as one of the major challenges for TRH, together with the need to identify mechanisms to increase funding for preservice education. This issue is elaborated on in our response to Question 19.

17. One of the criticisms of JHPIEGO is that the cost for services is too expensive, especially for field programs. Please comment on this.

JHPIEGO's external, competitive environment is becoming increasingly cost-conscious as USAID and other donors seek to maximize the returns on their sponsored programs. JHPIEGO management is keenly aware of the need to contain costs, yet increase program results and effectiveness, if we are to remain a leader in the provision of family planning, reproductive health and performance improvement services.

Toward this end, JHPIEGO has successfully decreased its program support and fixed operating costs as a percentage of total project costs—from over 36% at the advent of USAID's "Field Support" funding process to approximately 23% today. With respect to field programs, JHPIEGO has been able to distribute the support costs of its country offices across a wide base of projects from multiple awards (MNH, TRH, SFPS and CECAP), resulting in hundreds of thousands of dollars of cost savings to individual awards.

Just as relevant to the perception of costs is JHPIEGO's cost structure, which tends to capture a higher percentage of total costs as relatively "fixed" and a smaller percentage of costs as "variable." This structure is reflective of JHPIEGO's approach to program implementation, whereby centralized pools of clinical, technical and program resources (and costs) are applied to decentralized programs and projects across the globe. As a result, one of the key ingredients to JHPIEGO's success has been its ability to respond to the increasingly complex program environment through the adept application of a pool of highly talented and capable human resources to a wide variety of country programs and technical initiatives. While this approach has been highly successful from the perspective of program effectiveness, it can be a disadvantage with respect to the perception of cost.

Multiple evaluations have demonstrated the sustainability of our approach. The fact that many other CAs and donor agencies have adopted TRH products (refer to Table 9 above) demonstrates the soundness of the approach. With benefits of TRH continuing to accrue in many countries long after JHPIEGO's activities have ceased, the demonstrated quality of JHPIEGO's work and the approach that we adopt accordingly require that the investment be amortized over the time that benefits continue to accrue. When program costs are amortized over the longer period over which benefits are received, then JHPIEGO programs are demonstrated to have significantly greater value compared to alternative approaches that do appear to be less costly in the short term.

If JHPIEGO is to continue to secure substantial amounts of field support funding, it must deal more directly and more informatively with various AID Missions about its systematic and development-oriented approach to program implementation and related costs. While the adoption of this approach brings with it certain higher initial costs than might be incurred otherwise, the sustainable outcomes that JHPIEGO programs consistently achieve result in lower overall program implementation costs in the long-term. For instance, it is clearly more costly in the short run to develop capacity-building interventions than it is to simply train healthcare providers.

In summary, JHPIEGO recognizes the need to contain costs in an increasingly competitive and resource-conscious environment. In particular, JHPIEGO must continue to lower its administrative costs relative to total costs to demonstrate its cost-effectiveness and commitment to maximizing the investments of its sponsors. JHPIEGO has recently initiated an internal review of its costs in comparison with other, similar organizations. We will use the results of this assessment as the basis for a more informed dialogue with AID.

18. What are the strengths and areas for improvement in the TRH approach to establishing partnerships with USAID missions, other donors, host country governments and other cooperating agencies?

One of the defining characteristics of TRH by Missions and other cooperating agencies is that TRH is a project that delivers high quality, technically sound training, conducted by trainers who have superior clinical and training skills, supported by evidence-based training materials. Our success in working with host country governments is that we build national capacity through developing training and learning systems and networks of trainers.

All of the staff responsible for TRH projects possess excellent programming and technical skills. As an example, the JHPIEGO Country Directors in Kenya, Malawi, Nepal and Zambia have, on average, worked in the population field 15 years, or longer. Field staff as well as those based in Baltimore are recognized as being responsive to country and Mission needs, knowledgeable, adaptable to changing country conditions and programming needs, responsive to the Mission's workplan/results packages and very willing to work with a variety of partners. Yearly workplans are shared with Missions and country counterparts and are revised as needed. TRH staff frequently participate in donor coordination meetings and strategic planning exercises incountry. The PROQUALI project in Brazil was a good example of how TRH partners with others. We worked as a team with MSH and JHU/CCP, were open to suggestions, kept each other constantly informed and shared credit for project accomplishments.

As a result, donors and other cooperating agencies often seek to partner or collaborate with TRH. For example, TRH was one of the first agencies visited by staff of the World Health Organization's Implementing Best Practices (IBP) initiative, to learn more about the way JHPIEGO both developed and disseminated guidelines. JHPIEGO has since become a founding member of the IBP consortium. Other examples also reinforce that collaboration with TRH is useful and desirable for them:

- In Kenya, Family Health International collaborated with TRH to evaluate the effectiveness of the strategy for national dissemination of reproductive health/family planning guidelines. This collaboration was so successful that TRH is now working with FHI on the dissemination of a family planning orientation guide for HIV/AIDS workers, and discussions have begun on TRH taking the lead in identifying approaches to scaling up IUD use in Kenya (with FHI responsible for the evaluation component).
- In Uganda, TRH worked collegially with Makerere University in the establishment of the Regional Centre for Quality of Health Care, which, over the last 3 years, has developed into one of the leading regional African institutions with indigenous capacity to offer many of the same programs that USAID CAs provide.
- More recently, Georgetown University's Institute for Reproductive Health has sought a partnership with TRH both to develop a ReproLearn tutorial on the Standard Days Method of family planning as well as to collaborate on the introduction of this method in West Africa.
- For many years, TRH has coordinated development of the Maximizing Access and Quality (MAQ) modules, overseen the MAQ website and successfully partnered with two Historically Black Colleges and Universities (Morehouse and Drew), under USAID's HBCU initiative.

Even when USAID funding is no longer available, organizations still seek to work with JHPIEGO. Family Health International in Kenya provided $250,000 to JHPIEGO's Kenya office to disseminate the Kenya National VCT guidelines through the decentralized network of training centers established under TRH. In Ghana, although TRH no longer supports inservice training, the Government counterparts still call the inservice training system established by TRH the "JHPIEGO training," in recognition of its high quality.

Leveraging of funds is another good example of how TRH has established partnerships. In Zimbabwe, Ecuador and Peru, TRH leveraged funds from UNFPA relating to the dissemination and/or printing of National Family Planning Guidelines produced with TRH support. Also, for many years in Nepal, UNFPA has supported incountry inservice training costs, while TRH has provided the technical assistance to His Majesty's government for the training.

In order to improve partnerships with Missions and other agencies and donors, TRH needs to be more proactive in publicizing its results and successes. In addition, TRH programming staff based in Baltimore need to identify more opportunities to interact with USAID Mission staff, either through making targeted programming visits to countries, or through meeting with these staff during their TDYs to Washington and at regional or international meetings.

TRH will continue to look for more opportunities to present its successful approaches and interventions through workshops or seminars. An example of this was the very successful Training: Best Practices, Lessons Learned and Future Directions conference, which was held in Washington, D.C. in May 2002. A similar regional conference will be conducted in the spring, most likely in Nairobi. In addition, TRH will be overseeing a number of regional workshops on performance improvement and gender.

Corporately, JHPIEGO will be more active in seeking opportunities to establish additional field offices. Having an "on the ground" presence presents many opportunities for programming and interaction with USAID Mission staff, other donors and CAs, which are not as available when country programs are managed from Baltimore.

19. What have been the three biggest challenges JHPIEGO has had to face in implementing the TRH cooperative agreement? How did you overcome them? What challenges do you see in the future?

A. The shift in program orientation from "training" to "Performance Improvement" and "Performance Support"

TRH historically has been known as an organization that conducts high quality reproductive health training. With the evolution in thinking that training must address the wide range of interventions needed to improve the quality and accessibility of reproductive health services, TRH changed its programming focus to Performance Improvement (PI). All programs being implemented have been built on a sound PI framework.

This shift has resulted in the hiring of new staff who have a PI orientation, the development of new training materials, and the need to train all JHPIEGO programming staff in the PI approach. Incountry counterparts have also been trained to use the PI approach. Further, we have worked closely with the PI Advisor at USAID/W and with other cooperating agencies, particularly PRIME, on refining the PI approach, conducting PI workshops to orient USAID staff and CAs and developing training materials such as the recently produced PRIME/JHPIEGO Transfer of Learning Guide.

We have also expanded upon this concept to that of "Performance Support." Performance Support is the development and introduction of information technology that, by expanding the ability of training institutions to gain access to update reproductive health information, enhances performance, shortens training time and conserves resources.

B. The perception by some USAID Missions and counterparts that TRH is predominantly a family planning training project.

Many USAID Mission personnel and collaborating agencies still remember TRH as a project that delivers high quality clinical training in family planning. While this core strength remains, the TRH mandate and portfolio have been enlarged significantly to reflect changing field needs and conditions. With expertise in PI, supervision, human resource development, gender integration, HIV/AIDS, infection prevention, postabortion care and information technology, TRH has demonstrated its capacity to offer far more than strengthening family planning training systems in country programs.

Several country Missions have recognized these new TRH capabilities and strengths—Jamaica and South Africa (HIV/AIDS), Malawi (Human Capacity Development, PI), Zambia (PAC OJT)—and USAID's HIV/AIDS Office has provided funding for a human capacity development initiative. However, TRH must continue to improve the way we market our expertise so that Missions and USAID offices in Washington see the full range of our capabilities, products and services. In addition, TRH will continue to work closely with the HIV/AIDS office at USAID regarding our technical capabilities in this area. The same competency-based training approaches that we have used for family planning can be employed in HIV/AIDS, as is being demonstrated in Jamaica. TRH will continue to orient HIV/AIDS office staff to these capabilities.

C. Declining field support levels

Over the last 5 years, many USAID Missions have shifted their procurement mechanisms from field support to bilateral mechanisms. As a result, TRH field support has been reduced. While we have been successful in gaining new field support in South Africa, the Philippines, Jamaica and the Eastern Caribbean, and from REDSO/ESA and the Africa Bureau, and have increased

levels of field support in Zambia and Malawi, many of the countries where we have worked so successfully have become bilateral projects: Indonesia, Nepal, Georgia, Central Asia, Ukraine, Peru, Kenya and Uganda. (JHPIEGO is part of the bilateral programs in Indonesia, Nepal and Uganda. Requests for Applications are still in process for Uganda, Ukraine, Uzbekistan/Tajikistan and Georgia.)

From a programming perspective, TRH still has influence in many of these bilateral countries through the replication and adoption of tools and approaches it has developed (See **Table 9**). TRH approaches and tools are being implemented in many bilateral programs where we have been a member of the successful team, including Nepal, Indonesia, Uganda and many West African countries under the Family Health and AIDS (SFPS) project. A good example is Indonesia where the STARH bilateral has implemented the PI approach. In addition, in countries like India where TRH no longer works, competency-based training approaches and skills have been institutionalized. This was recently demonstrated at the Training: Best Practices, Lessons Learned and Future Directions Conference held in May 2002, where the participants from Uttar Pradesh (UP) demonstrated the competency-based training approaches initially introduced by TRH in UP more than 5 years ago.

The challenge for TRH is to make certain that USAID Missions are aware of TRH's capabilities, and for TRH staff to vigorously pursue field support funding in order to provide high quality assistance when the need is identified. Over the past months, we have expanded our efforts to contact Missions, REDSO/ESA and Bureaus. More than 20 Missions have been contacted regarding TRH's expanded capability. In addition, discussions were held with a number of Missions during the recent Europe and Eurasia (E and E) conference held in August 2002 in Washington, as well as in Barcelona during the recent International HIV/AIDS conference.

TRH must also continue to expand its capabilities in technical areas other than family planning. While family planning remains our core strength, many of our innovative training approaches can be applied to other technical areas, such as IMCI. We must continue to strengthen our ability to provide technical leadership in HIV/AIDS to effectively respond to the global crisis. The recent hiring of a Senior HIV/AIDS Advisor to work with TRH and the designation of an HIV/AIDS Technical Development Officer will provide the foundation for strengthened programs in HIV/AIDS.

A Future Challenge—Establishing the Base for Preservice Education Worldwide

Recent TRH assessments in the Philippines, Ghana and Turkey have confirmed that preservice education equips graduates with the technical skills to begin providing services immediately after graduation, reaches more providers at one time than inservice training, and ensures that graduates have a common base of knowledge and skills. In effect, this is the most sustainable, efficient and effective means of reaching new providers. Strengthened national preservice education systems should become the preferred mode for transferring knowledge and skills, gradually replacing the vast inservice systems that have evolved in many countries.

TRH is currently conducting preservice programs only in Ghana and Malawi. That more countries have not seen the need to provide support for these programs is probably because results are not seen immediately. Strengthening a preservice training system is typically a 3- to 5-year process, which includes not only strengthening skills of faculty and tutors and curriculum revision but, most important, strengthening/upgrading clinical training sites. If USAID's efforts in FP/RH are to have a lasting and sustained impact in countries around the world, placing an increased focus on strengthening preservice training in family planning and

reproductive health, including HIV/AIDS, and finding the adequate resources to do it, is one of the major challenges ahead. TRH looks forward to working with USAID to move the training paradigm in developing countries from inservice training to preservice education. Our vision is that students in all developing countries will leave their undergraduate training with the necessary technical skills, knowledge and attitudes to meet the service delivery needs of the populations they will serve.

20. When LearnWare was created, an agreement was made whereby proceeds would be re-invested in the TRH project for programmatic use. Since its inception, please describe by year how much income LearnWare has generated and how the profits were used to benefit the TRH project.

JHPIEGO and LearnWare entered into an agreement whereby LearnWare agreed to provide JHPIEGO with royalty income equal to 3% of LearnWare's total revenues for the 5 year period ending
30 September 2002. In turn, JHPIEGO committed to re-invest in the TRH project that portion of royalties that was generated by AID sponsored sub-contracts from JHPIEGO.

To date, LearnWare has paid a total of $88,880 in royalties to JHPIEGO, of which $25,391 has been credited to Program Income under the TRH award as follows:

1998	$7,892
1999	$13,374
2000	$4,125
Total	$25,391

In accordance with 22CFR226.24, those proceeds are "added to funds committed by USAID and the recipient to the project or program, and used to further eligible project or program objectives."

21. Regarding USAID management, please describe your relationship with the CMT/FPSD Divisions throughout the life of this agreement. What have been the strengths and challenges? How could this relationship be improved? Also, describe your experience working with USAID field Missions.

The TRH relationship with the CMT/FPSD has been excellent. TRH has been fortunate to have as backstop CTOs who were knowledgeable about FP/RH and who were strong advocates for the TRH program. Our CTOs have worked energetically to keep us informed of USAID/W issues and priorities. They have also worked hard to facilitate discussions between TRH staff and USAID field staff.

Recent CTOs have included Dr. Estelle Quain, Seema Chauhan, and currently Jim Griffin. Estelle, who served as CTO during the early years of TRH, has recently transferred to the HIV/AIDS office at USAID. Estelle has recognized how many of the TRH interventions can be applied in the HIV/AIDS area, and has been a strong advocate for TRH in her new office.

Jim Griffin's field experience and background and training in performance improvement have been a perfect "fit" for TRH, as we have moved into performance improvement.

Until recently, Maria Busquets served as CMT Division Chief. Over the years, Maria was very supportive of TRH. Particularly noteworthy was her encouragement to pursue initiatives in preservice education and work with HBCUs. She strongly supported our efforts to explore the use of new information technologies and the Internet to strengthen RH training and service delivery in low-resource settings.

TRH has recently transitioned into the SDI Division. We are now establishing the same excellent working relationships with the staff of the SDI Division that we had established with CMT Division staff.

In the coming months, we need to continue to work closely with our CTO to inform Missions that TRH capabilities have expanded over the years and now include performance improvement, human resources development, supervision and HIV/AIDS. In addition, we need to continue to work with the CTO to make Missions aware that TRH can receive funding from multiple accounts such as those for HIV/AIDS and infectious diseases.

The TRH relationship with field missions, with rare exception, has been excellent. Field missions are very complimentary of TRH, and of the high quality programs that we carry out. Reflective of this are the increases in field support funding received in Malawi, Jamaica, Haiti, Ghana and Zambia, and the new field support being obtained for South Africa and the Philippines.

- Melinda Wilson at USAID/South Africa worked with TRH when she was with REDSO/ESA on the Regional Centre for Quality of Health Care Initiative in Uganda. As a result of Melinda's excellent experience with TRH in Uganda, TRH has recently been provided significant funding to work in South Africa.
- In Jamaica, TRH recently was asked by the Mission to join a joint USAID/Jamaica and FHI HIV needs assessment team in Suriname, and we have been asked to participate in a similar mission with these same counterparts this fall in Trinidad and Tobago.

These examples illustrate some of the excellent relationships that have been established with Missions.

In the rare exception—a miscommunication between USAID Bolivia and TRH on the FY 01 field support allocation—TRH worked hard to try to resolve the problem. The Mission was pleased with TRH program implementation; the issue was differing expectations for FY 01 field support levels. To address issues of this nature, JHPIEGO established a system whereby the TRH Project Director sends an e-mail to all Missions that provide field support asking that the HPN Officer confirm the field support allocation to both USAID/W and to JHPIEGO/TRH. This e-mail is sent before the start of the fiscal year. This system has prevented recurrence of such a problem with other Missions.

ATTACHMENT I

TRH MATERIALS USED BY OTHER ORGANIZATIONS

The list that follows presents selected examples of adaptation and use by other organizations of TRH materials.

Breast and Pelvic Examination Guidelines

WHO distributed Russian translation to participants in a Clinical Training Skills workshop conducted in Geneva.

Clinical Training Skills manual and training package

Adapted by QAP to train QA trainers (1996)

Adapted by the Bill and Melinda Gates Institute for Population and Reproductive Health at JHU Bloomberg School of Public Health to develop a "leadership training skills" manual and learning package

WHO (in conjunction with JHPIEGO) is developing a preservice teaching skills package; the content of the modular reference manual will be largely taken from the JHPIEGO CTS, ATS and ID manuals (2001–02). The accompanying video will be based on JHPIEGO's CTS ModCal video segments.

Used by WHO for a workshop conducted in Geneva for doctors and midwives from the FSU.

Ukraine. Adapted by an incountry NGO; training conducted in Odessa region with MOH approval.

Kenya. Used by IPAS and AMKENI (the bilateral project).

Sampling of external buyers: AED, AVSC, CARE, DA, FHI, Ipas, JSI, PATH, Save the Children

Comprehensive Family Planning curriculum (based on and used with the clinical reference manuals: IP, IUD, PocketGuide)

Ukraine. Used by UNFPA for inservice training of service providers (1998-99)

Georgia. Used by MSH for inservice training of service providers

Central Asian Republic. Used by the Zrav Reform Project (consortium of Abt, JSI and INTRAH) for pre- and inservice medical and nursing/midwifery education. They are also using the PocketGuide, Clinical Training Skills and Advanced Training Skills manuals.

Turkey. Used by UNFPA in pre- and inservice midwifery and medical education along with the **Infection Prevention, Clinical Training Skills and Advanced Training Skills manuals**

Infection prevention manual, courseware

Vietnam: Adapted by Pathfinder for modular training curriculum

Kenya. Used by UNFPA.

Malawi (2001–02). UNFPA, Umoyo Network QAP and Medical Council of Malawi. These groups are also using JHPIEGO-trained IP trainers to conduct the training. The Reproductive Health Unit of the Ministry of Health and Population has planned additional infection prevention training for later in the year and will use our material; this training will be supported by UNFPA.

Zambia. ZIHP Serv, funded by JSI, is using the IP materials as a reference and in the expansion of PAC services. These materials will also be used by GOZ in developing its clinical protocols for IP and RH (work likely to be funded by UNFPA).

Sampling of external buyers: AVSC, CARE, CARE/Zambia, FCI, Ipas, JSI, MSH, PATH, Save the Children

PAC Reference manual and OJT Training Package

Malawi (2001–02) Adapted for use in collaboration with EngenderHealth and endorsed by the Reproductive Health Unit of the Ministry of Health and Population for use in all PAC training in Malawi. Current partners supporting this training include JHPIEGO, EngenderHealth and the World Bank-funded Population/FP Project.

Uganda. Used by INTRAH to train midwives (through the DISH project).

Zambia. All partners are using this package for PAC expansion, which is supported by ZIHP Serv (funded by JSI).

PAC Reference Manual and Group-based Training Package

Tanzania. INTRAH and the Ministry of Health have adapted the PAC training package for use in public sector training.

Kenya. Adapted by AMKENI (the bilateral program)

Norplant Reference Manual and Training Package

Kenya: Adapted by AMKENI (the bilateral program)
Sampling of external buyers: AED, AVSC, CARE, DA, FHI, IPAS, MSH, PATH, Population Council

PocketGuide

India (1996). Adapted by JHPIEGO for use in Uttar Pradesh. When JHPIEGO left India, the adapted manual continued to be used by PRIME and AVSC in the SIFPSA program.

Malawi (2001–02). Adapted and expanded into the Malawi National RH Service Delivery Guidelines which were launched in February 2002.

Pakistan (1996). Adapted by PSI, in conjunction with INTRAH, for use in the Green Star Clinic Project training initiative. The Green Star Clinic Project was supported by Social Marketing Pakistan, a NGO established with the assistance of Population Services International.

Zambia. Will be used by GOZ in developing its clinical protocols for RH (work likely to be funded by UNFPA).

Sampling of external buyers: Abt, Asia Fdn, AVSC, CARE, CEDPA, Ipas, PATH, Population Council, Save the Children

IUD Reference Manual and Training Package

Pakistan (1995). Adapted for use in the Green Star Clinic Project training of female private practitioners. The Green Star Clinic Project was supported by Social Marketing Pakistan, a NGO established with the assistance of Population Services International.

Sampling of external buyers: CARE/Uganda, DA, FCI, JSI, MSH, PATH, Save the Children

Norplant Reference Manual and Training Package

Sampling of external buyers: Asia Fdn, AVSC, CARE, CARE/Uganda, DA, FHI, JSI, MSH, PATH, Population Council

Training Approach

In addition to these examples of other organizations and donors using specific materials, there is clear evidence from the above countries that the competency-based, humanistic training approach promoted by and through these reference materials has been widely adopted. The following summary from the SFPS Project (Family Health and AIDS [Santé Familiale et Prévention du SIDA] is a good example of this point. (The SFPS project is jointly planned and executed by five institutions: having a separate cooperative agreement with USAID (JHU/CCP, JHPIEGO, FHI, PSI and the Payson Center at Tulane University)

The SFPS project has widely promoted TRH tools and approaches in West and Central Africa. This is the result of numerous training sessions carried out by the SFPS project over the past 6 years. SFPS has started disseminating the results of using TRH tools ,approaches and materials in the region . The dissemination will continue in 2003.

Here is a summary of institutions that use TRH tools, approaches and materials.

- The training and service delivery components of the SFPS project in West and Central Africa managed by JHPIEGO has used the clinical and advanced training skills, instructional design, infection prevention and performance improvement approaches to train health personnel in Ministries of Health, NGO, preservice institutions and individual African experts in Burkina, Cameroon, Cote d'Ivoire, Togo and Niger. The project has used all materials related to these approaches. SFPS has used the CTS approach to train STI service providers and experts.

- Within the SFPS project other components such as JHU/CCP, FHI use consultants trained by SFPS/JHPIEGO to do training in FP counseling, care and support for people living with HIV.

- UNFPA in Burkina, Togo, and Cameroon are using experts in training developed by SFPS to train their service providers. This means that the CTS and IP approaches are used.

- GTZ, the German cooperation in Togo, Burkina, Cameroon are using experts developed by SFPS to train service providers of their projects

- The World Bank project has negotiated with SFPS in Burkina to conduct trainings in the catchment area of its project.

- Plan international in Togo is using CTS and IP

- The WHO office in Togo uses the anatomic models of TRH.

- Family Care International in Burkina uses he Infection Prevention approach.

- RETRO-CI , the CDC project in Cote D'Ivoire has agreed to SFPS use of the CTS, PI and IP approaches to train services providers in their project's zone.

- World Neighbors in Burkina uses CTS.

- African Institutions such as CEFOREP and CAFS received CTS, ATS, ID, IP training from JHPIEGO. These two institutions now have subcontracts with other donors to do training using the approach learned with JHPIEGO.

In **Zambia**, ZIHP Sys (Abt) is using an approach based on suggestions from JHPIEGO for national dissemination of healthcare finance information and ZIHP Comm (JHU/CCP) is following an approach suggested by JHPIEGO for national dissemination of the FP counseling kit (this activity is supported by both USAID and UNFPA funds).

ATTACHMENT II

PRESERVICE EDUCATION TEACHING SKILLS: A FACULTY DEVELOPMENT PACKAGE

A JOINT WHO/JHPIEGO PUBLICATION

WHO and JHPIEGO are working on the development of a package of materials designed to improve the performance of preservice education faculty in medical, nursing and midwifery schools. The purpose of the package is to ensure that faculty and clinical instructors within medical and paramedical schools have the classroom and clinical skills required to effectively teach.

Faculty and clinical instructors within medical and paramedical schools, and the relevant staff at hospitals or clinics where students attend clinical practice, should be able to apply the information in the following modules which comprise the reference manual.

- Foundations of Preservice Education for Health Professionals
- Plan for Classroom and Clinical Teaching
- Prepare for Classroom and Clinical Teaching
- Prepare and Use Audiovisual Aids
- Prepare and Deliver Interactive Presentations
- Facilitate Group learning
- Develop Clinical Skills through Demonstrations and Coaching
- Facilitate the Development of Clinical Decision-Making Skills
- Manage Clinical Practice
- Prepare and Use Clinical Skills Assessments
- Prepare and Use Knowledge Assessments
- Monitor and Evaluate Teaching

In order to strengthen the teaching skills of faculty and clinical instructors, two basic activities must occur.

- Teachers and clinical instructors must first acquire the essential knowledge about classroom and clinical teaching skills. This information is typically presented in a reference manual and modeled for the learner by a trainer and/or through video examples. The information in the manual may be explained by a trainer during a group course and/or learned through self-study using print and/or audiovisual and computer-based materials.

- Faculty and clinical instructors must have an opportunity to practice their newly learned knowledge and skills in a safe environment while being observed and coached.

Because of the difficulty of faculty and clinical instructors to attend external courses, and given the range of knowledge and skills required, it is recommended that an institution-based self-study approach be used to strengthen teaching skills. To implement this approach, the following sequence of activities is recommended.

1. Lead faculty, teachers and/or clinical instructors (several per institution if possible) complete the self-study materials (including exercises, reviewing video examples) prior to, or as part of, an external teaching skills course.

2. During an external teaching skills course, participants are given opportunities to practice essential teaching skills.

3. During the external teaching skills course, participants develop plans for implementing a faculty development or teaching skills program within their institutions.

4. Lead faculty, teachers and/or clinical instructors conduct a faculty development or teaching skills program within their teaching institution for relevant faculty and clinical instructors. This program could be implemented in several ways, such as:

    - Faculty and clinical instructors work through the self-study materials and interact with the lead faculty as required. The lead faculty would be available to answer questions, discuss questions, review exercises and then observe and coach when skills are applied in the classroom and/or clinic.

    - The lead faculty offers a series of seminars over an extended period of time. The seminars would focus on essential teaching skills and the faculty and clinical instructors attending the seminars would work through their self-study materials. If possible, during these seminars the lead faculty could demonstrate some skills and plan limited practice sessions. They could also observe and coach when skills are applied in the classroom and/or clinic.

    - Teachers and clinical instructors complete the self-study materials. The lead faculty then conducts a 3–4 day teaching skills practice workshop. The lead faculty also observe and coach when skills are applied in the classroom and/or clinic.

The draft version of the faculty development package is scheduled for completion in late 2002.

APPENDIX E

SUPERVISION AND DEPLOYMENT DATA
(from JHPIEGO)

SUPERVISION AND DEPLOYMENT DATA

TRH Results Framework Information

The TRH cooperative agreement included interventions that would support the USAID Training Results Framework's *IR 2: Improved Management Systems*, primarily *SR 2.2, Personnel policies, procedures and supervision systems in places* and *R 2.4, Capacity for strategic planning for performance improvement of trained personnel established*

TRH identified that improving management systems for training would include

- a system for coordinating the assignment/deployment of individual students/trained participants in specific RH/FP services to an appropriate service delivery point and job assignment after graduation/training
- planning and deployment strategies developed and implemented
- coordination of supervision for service delivery improvement.

Our work in TRH to that end has used our national training systems strengthening work to raise awareness about, identify linkages needing strengthening, and establish and strengthen monitoring and reporting systems for ensuring that the need for these systems is recognized and that assistance is provided to develop these systems in countries where TRH has been working.

For example, for the indicator, "numbers of supervision visits which include supervisors and trainers to ensure compatibility and continuity between initial follow-up of trained providers and routine supervision of providers," we projected a target of 10 countries, and reported in the FY 03 workplan (see Expected Achievements section) that we have progress in 6 countries for this indicator (Ghana, Kenya, Nepal, Malawi, Bolivia, Turkey). In addition, we are beginning to receive data from the systems work we have done:

Ghana:	30 supervision visits were conducted in FY02. The supervisory visits were done by trainers and regional/district supervisors to recently trained preceptors
Guinea:	12 supervision follow-up visits were done to PAC sites – 3 sites were visited 4 times
Burkina Faso:	27 supervision follow-up visits were done – 9 sites visited 3 times
Zambia:	12 supervision follow-up visits to PAC sites – 5 sites visited 2 times, two other sites visited once each
Malawi:	16 supervision visits were made in FY02 to PAC sites – the four facilities were visited 4 times each

As above, for the indicator, "numbers of individual students/ trained participants in specific FP/RH services deployed to an appropriate service delivery point and job assignment after graduation/training," our target in IR 2 is again 10 countries, and the FY 03 WP reports that expected progress is 7 countries (Uganda, Kenya, Ghana, Malawi, Turkey, Nepal, Indonesia).

Malawi:	We have developed a new data program in Malawi that will provide the MOH with current information on the location of health care providers

(type of clinical setting, rural/urban) and what kind of training they have completed. We expect that "individual students" will be added to the database when they graduate and are deployed.

Zambia: All training to date has been inservice, so all providers have returned to their service delivery sites to provide services:

- 22 service providers trained in PAC are deployed at healthcare settings with PAC services
- 145 providers trained in CTU/FP are working in FP sites
- 137 providers were trained in IP and 88 received PAC orientation

Ghana: Of the 110 graduates from JHPIEGO assisted midwifery schools in 2000, 92% are working as midwives, 8% are working as nurses due to nursing shortages (and all these are from one school working at one hospital in Kumasi which is severely short staffed.) 93% of midwives are working in government facilities, 9.1% are NGO/mission facilities, 7% did not report where they are working. Year 2000 midwives are working in 49 of 62 districts in Ghana. Graduate midwives deliver a wide range of services covered in their preservice training. Below are the percent of graduates who reported routinely providing the following reproductive health (RH) services:

- Labor & Delivery: 87%
- Postnatal care: 79%
- Antenatal care: 78%
- Post Abortion Care: 75 %
- Family Planning services: 63%
- Sexually Transmitted Infections: 63%

Malawi: A total of 232 providers have received inservice training in the following areas:

- PAC (16)
- Service delivery guidelines RH update (161)
- Norplant training (10)
- Minilaparotomy training (2)
- IP training (43)

31 Providers who are trainers have received training updates on either service delivery guidelines (9), FP counseling (10) or IP (12). All these trainer/providers returned to their service delivery sites.

117 clinical preceptors, who are also service providers, have received training in service delivery guidelines RH update (40), RH/FP counseling training (38), IP training (39)

1 November 2002

APPENDIX F

TRH CONTRIBUTIONS TO THE FIELD OF TRAINING AND LEARNING (from JHPIEGO)

TRH CONTRIBUTIONS TO THE FIELD OF TRAINING AND LEARNING

Contribution	Key Documentation
National Training Systems	
With adequate investments, competency-based training methods can be institutionalized and sustained in national training programs in preservice medical, nursing and midwifery education programs, thereby "graduating" them from further TRH technical assistance.	Evidence from country training systems in Kenya, Philippines, Malawi, Central Asian Republics, Turkey, Peru
National training systems need to have an integrated approach across the life cycle of learning (preservice education to inservice training to continuing education) to ensure an appropriate workforce that can provide quality services.	Evidence from country training systems in Malawi, Kenya, Central Asian Republics, Nepal, Turkey
Approach to Training	
To ensure client safety, standardization of clinical skills and a structured training approach are required. This is especially critical when training is being implemented globally. This need has required that JHPIEGO develop and use a competency-based training approach. Competency-based training results in competent providers across a variety of cadres and across a variety of content areas including HIV/AIDS and community-level work. The opportunity to practice in the classroom and on anatomic models increases each provider's competence while at the same time decreasing training time and costs. JHPIEGO has developed a competency-based approach to clinical training that is: • Based on mastery learning • Humanistic as competency is first demonstrated during simulations (i.e., anatomic models, role plays) • Participatory and interactive • Based on learning materials for the participants and trainers that are developed using principles of instructional design • Based on adult learning principles • Based on measurable learning objectives reflecting job expectations of the participants • Applied in both classroom and clinical settings	JHPIEGO's approach to training is based on extensive review of the training literature. The primary references are found in the: • Clinical Training Skills manual • Advanced Training Skills manual • Instructional Design manual • Competency-based training strategy paper In addition, in a research study we conducted in the mid-1990s focusing on the effect of using anatomic models, it was shown that competency-based training using anatomic models was more effective than traditional training. The Clinical Training Skills manual was adapted by the Quality Assurance Project to train QA trainers. The same manual was also adapted for training leadership trainers by the Bill and Melinda Gates Institute at Johns Hopkins University. All 3 reference manuals are being used extensively in a collaborative project with WHO to develop a preservice education teaching manual.
Training of Trainers	
Training interventions should be implemented by qualified trainers.	Literature review as documented in JHPIEGO's Clinical and Advanced Training Skills and Instructional Design manuals.
A structured trainer development process recognizes that there is a logical progression to the development of training skills, time and practice are required for mastery of each set of skills before moving to the next, and the skills needed at each level are unique and build on earlier skills.	JHPIEGO's trainer development pathway • Clinical trainer – trains service providers • Advanced trainer – trains new trainers • Master trainer – designs and develops courses and learning materials Each level incorporates coursework and practice.

Contribution	Key Documentation
With only minor adaptations, this process can successfully develop inservice trainers and preservice faculty and preceptors, for **all** clinical areas.	• *Reports from the JTIMS database demonstrate the use of the pathway to develop all types and levels of trainers for a wide range of clinical areas, on a global level.* • See preservice reports listed below.
Once developed, qualified trainers need periodic/ongoing updating and refreshing of both training and clinical knowledge and skills.	• Brechin, S., Schaefer, L., Garrison, K., and Lacoste, M. (2001). *Retention of Training Skills in Family Planning Trainers: Results of a 1997 Trainer Follow-up Assessment in Zimbabwe.* JHP-09. • Blake Susan M and SJG Brechin. 1999. *Training Evaluation Handbook for JHPIEGO Program Staff & Master Trainers.* September. (Draft)
Technology-Assisted Learning	
Efforts to improve provider and trainer performance can be conducted using technology-assisted learning.	JHPIEGO's contributions to technology assisted learning include: • ModCal™ for IUD • ModCal for Clinical Training Skills • ReproLine® website • ReproLearn® Tutorials • JHPIEGO TrainerNews® electronic newsletter • REPRONET-L e-mail discussion group • Technology assisted learning centers (TALCs)
Computer-assisted learning is an effective alternative learning approach in low-resource settings.	• *Pilot Testing ModCal for Inservice and Preservice Family Planning Training in the Philippines*. RL Fernandez, IG Kimsen, ER Valles, IO Javier, TF Dean, SJG Brechin and K Garrison. 1999 • *Implementing a New Training Approach: Pilot Test of ModCal™ in Zimbabwe.* JHPIEGO Technical Report FCA-28. Brechin SJG et al. 1997
An electronic newsletter supports the performance of RH trainers.	JHPIEGO TrainerNews survey results, June 2001.
Electronic services provide access to up-to-date RH information for RH service providers, faculty and trainers in low-resource settings.	Information Update Technology fact sheet (draft) Anecdotal information. 2002.
Access to computers and the Internet improves the performance and academic experience for RH faculty and students.	*Increasing Access to Reproductive Health Information in Low-Resource Settings: Evaluation of a Technology-Assisted Learning Center in La Paz, Bolivia.* JHPIEGO Technical Report JHP-16. C. Schenck-Yglesias et al. 2002. Curran, K. et al. "Realizing the Possibilities: A Technology-Assisted Learning Center at Universidad Major De San Andres, La Paz, Bolivia." *TechKnowLogia*. Knowledge Enterprise, Inc. March/April 2001.
The ReproLine website provides widespread access to up-to-date RH information and training tools.	ReproLine usage statistics. Sept 2001-Sept 2002.
Individualized Learning	
Based on our experiences in the field, a variety of learning approaches can work in low-resource settings. Alternative training approaches like structured on-the-job training (OJT) and computer-assisted learning programs like ModCal® (Modified Computer-Assisted Learning) are as effective in transferring skills and knowledge as group-based training approaches and can be cost-effective.	JHPIEGO's approach to individualized learning is based on an extensive review of the literature and is described in the following documents: • *Improving Performance of Healthcare Providers Through Structured On-the-Job Training: A Pilot Test in Zimbabwe and Kenya.* JHPIEGO Technical Report. Brechin, S.J., Sullivan, R.L., Smith, T., and Lacoste, M. 1999. • *On-The-Job Training for Family Planning Service Providers.* JHPIEGO Strategy Paper. Sullivan, R. L. and Smith, T.S. 1996.

Contribution	Key Documentation

	• Sullivan, R. L., Brechin, S. and Lacoste, M. 1998. *Structured On-the-Job Training: Innovations in International Health Training.* In William J. Rothwell (Ed.), **Linking HRD Programs with Organizational Strategy** (pp. 155-179). American Society for Training and Development.
	• Individualized learning packages include:
	  • PAC Individual Learning Package
	  • IUD Structured On-the-Job Training (OJT) package
	  • No Scalpel Vasectomy Individual Learning Package

Transfer of Learning	
Maintaining new skills depends on a variety of conditions including supportive supervision, an enabling work environment with sufficient supplies and resources, and opportunities to use new skills after training. JHPIEGO supports training interventions that include transfer of learning strategies.	• JHPIEGO's approach to transfer of learning is based on an extensive review of the literature and is described in the JHPIEGO and PRIME publication entitled: *Transfer of Learning: A Guide for Strengthening the Performance of Health Care Workers* • Rawlins B, Garrison K, Lynam P, Schnell E, Caiola N, Brechin SJG. 2001. *Focusing on What Works: A Study of High-Performing Sites in Kenya.* • Brothers J, Rideout J, Smith J, Brechin SJG. 2000. *The Effectiveness of Training for Minilaparotomy Services in Nepal.*
Applying newly acquired knowledge and skills on the job after training requires the support of the worker's supervisor.	JHPIEGO has developed and is currently field-testing a supervision manual based on the performance improvement process. This manual is used to improve the performance of healthcare supervisors. The manual is entitled: *Supervising Health Services: Improving the Performance of People*
For service delivery guidelines to be more effectively disseminated requires an active orientation of a few staff in order to realize an "echo" effect in their own clinics.	• Stanback J, Brechin SJG, Lynam P, Toroitich-Ruto C, Smith T, and the Kenya Guidelines Update Evaluation Study Group. 2001. *The Effectiveness of National Dissemination of Updated Reproductive Health/Family Planning Guidelines in Kenya.* Family Health International. • Lessons learned from JHPIEGO's guidelines study in Kenya now informs our current strategies through the MAQ initiatives.
Preservice Education	
Training interventions to improve provider performance should be linked to the preservice education system; strengthening preservice education improves graduates' performance on the job.	*An Evaluation of Job Performance of Midwives One Year After Graduation in Ghana*. (In process). 2002.
Strengthening preservice education should be based on a clear process that involves stakeholders.	Schaefer, L (ed), (2002). *Preservice Implementation Guide: A Process for Strengthening Preservice Education* which describes a process based on JHPIEGO's experience in 21 countries.
Strengthening preservice education requires improving design, delivery and evaluation of classroom **and** clinical teaching.	• JHPIEGO's Clinical and Advanced Training Skills and Instructional Design Training Packages. • Preservice Education Teaching Skills materials being developed by WHO and JHPIEGO
Traditionally the linkages between classroom and clinical teaching are weak; improving the linkages will promote students' skill development and readiness to practice upon graduation.	• Vollmer, N., Dean, T. F., and Valadez, J. (1995). *Evaluation of Preservice and Nursing Reproductive Health Training in the Philippines.* FCA-23. JHPIEGO

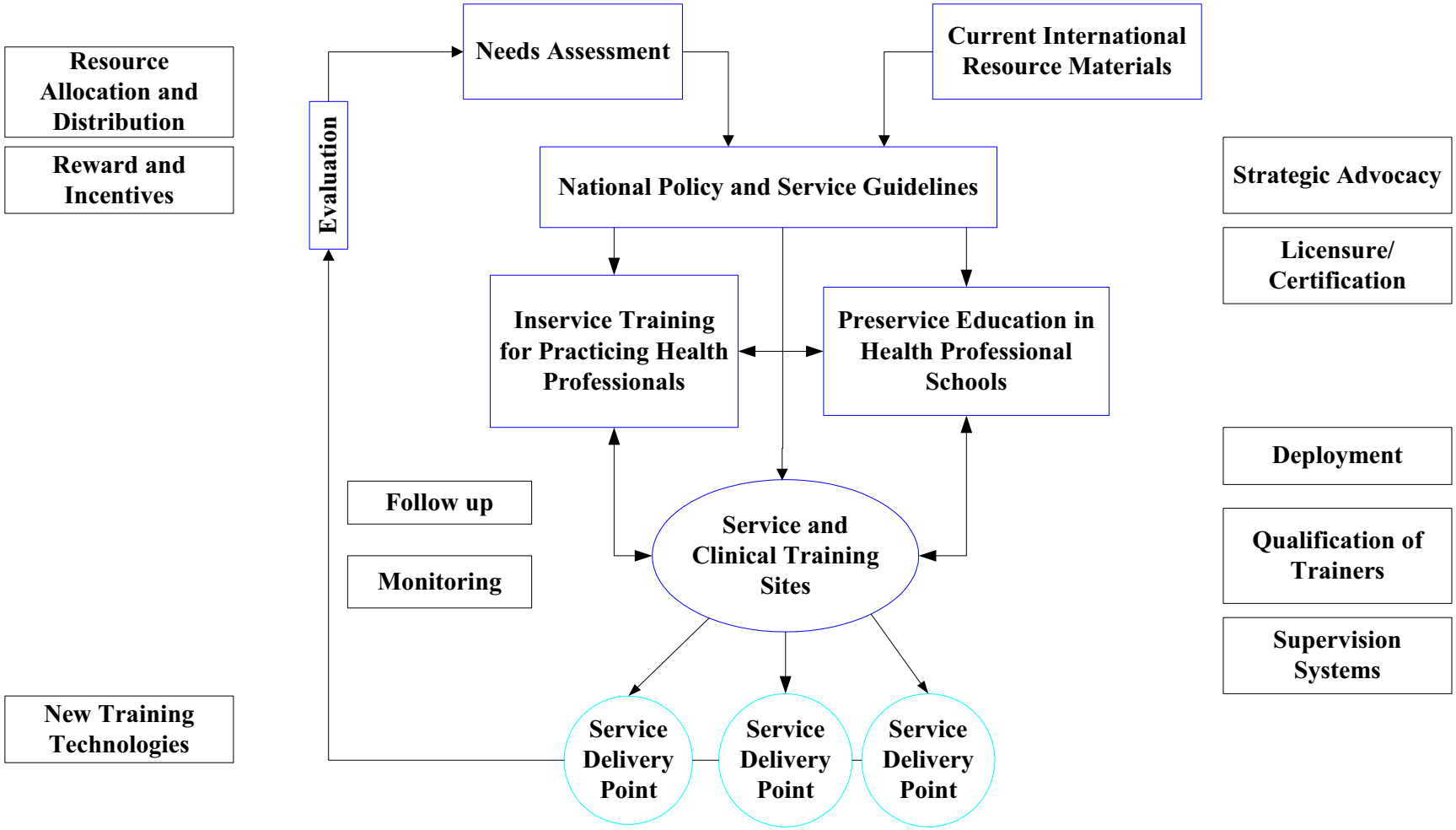
Contribution	Key Documentation
Preservice curricula are generally overloaded with content; rational use of teaching time requires that the focus be on developing a basic set of skills that will be used by most or all graduates, leaving more advanced or highly technical skills to inservice training.	Technical Report. • Pons, M., Rawlins, B., and Brechin, S. (2002) *Institutionalization of Reproductive Health Preservice Education in the Philippines: An Evaluation of Programmatic Efforts, 1987-1998.* JHP-16 • Brechin, S., Pfitzer, A., Jean, P., Garrison, K., and Quist, C. (1999). *Strengthening Family Planning and Safe Motherhood Clinical Training in Moroccan Medical Schools: Evaluation of Student Performance.* JHP-01. • Ozek, B., Tuzer, T., Dean, T. F., Levin, L., and Brechin, S. (2002) *Developing Preservice and Inservice National Family Planning/Reproductive Health Clinical Training Systems in Turkey.* JHP-03. • Garrison, K., Pfitzer, A., Transgrud, R., and Nkangi, A. (2000) *The Effectiveness of Strengthening Family Planning Preservice Education for Nurses and Midwives in Uganda: Five Years of Achievements.* • Kinzie, B. and Ghosh, A. (2000) *Needs Assessment of Safe Motherhood and FP/RH Training in the Preservice Nursing and Midwifery Training in Kumasi and Koforidua.* • Brechin, S., Plotkin, M., Ghosh, A., and Wyss, S. (1997). *Strengthening Preservice Midwifery Education in Ghana: Achievements and Phase 2 Expansion Plans.* • *An Evaluation of Job Performance of Midwives One Year After Graduation in Ghana*. (In process). 2002. • Smith T and SJG Brechin. 2000. *Developing a National Family Planning/ Reproductive Health Clinical Training System in Kenya.* JHP-02. • Brechin, S., Smith, T., and Schaefer, L. (1997) *Family Planning/Reproductive Health Skills Assessmet of Nurses Finishing Basic Training in 12 Institutions in Kenya.* FCA-33. • Garrison, K, Pfitzer, A., Hyre, A., Blake, S., and Brechin, S. (1999). *Evaluation of Nursing and Midwifery Student Family Planning/Reproductive Health Knowledge and Skills at the Ecole Secondaire de la Sante in Mali.* • Schaefer, L., et al. (2000). *Midterm Review of the Institute of Medicine/JHPIEGO Proficiency Certificate Level Nursing Program in Nepal.*
During the preservice strengthening process, building on the synergies between the inservice and preservice systems (trainers, clinical practice sites), will increase the effectiveness of both systems.	
Providing support and follow-up to teaching institutions as they implement strengthened curricula and teaching is critical to their success.	
The standardization of teaching among institutions and the implementation of competency-based training are facilitated by the development and use of a learning package as part of the preservice strengthening process. Development of such a package should be based on the numerous learning packages for inservice and preservice that already exist.	
Strengthening one area of a curriculum can often lead to change in other areas as well; focusing on the **process** used in strengthening is therefore important in order to develop institutional capacity to continue the strengthening process on their own, if necessary.	
Strengthening preservice curricula and teaching is sustainable, with long-lasting results, in terms of: • Implementation of strengthened curricula • Use of competency-based methods and learning packages • Utilization of well-prepared faculty and preceptors • Opportunities for student practice and skill development, and student satisfaction with their experience	
Although preservice strengthening requires sustained effort over 3-5 years to implement all aspects of the process, there are immediate effects even before teaching begins: • Revised curricula and learning package based on national standards • Strengthened classroom faculty and preceptor teaching skills • Clinical practices sites are providing high quality services	
A Training Information System (TIS) is an important component of a national training system to be able to: -project training needs (ProTrain) -track and monitor training efforts (trainer, provider) using a Training Information Management System (TIMS©)	L Gaffikin and SJG Brechin. 1999. *Introduction to Training Information Systems.* JHPIEGO. (Draft)

Contribution	Key Documentation
Electronic TIS components based on formal paper-based systems allow coordination with and linkages to other parts of a Health MIS	Nepal, Malawi, Kenya
A Training Information Management System (TIMS) is essential to assess training efforts such as appropriate candidates meeting selection criteria, how a national training strategy fills projected training needs, etc.	Kenya, Malawi, Indonesia, and Nepal

APPENDIX G

REVISED FRAMEWORK FOR INTEGRATED REPRODUCTIVE HEALTH TRAINING (from JHPIEGO)

REVISED FRAMEWORK FOR INTEGRATED REPRODUCTIVE HEALTH TRAINING



APPENDIX H

GHANA LEVEL III EVALUATION AND OTHER JHPIEGO EXPERIENCES IN EVALUATING PRESERVICE EDUCATION PROGRAMS

GHANA LEVEL III EVALUATION AND OTHER JHPIEGO EXPERIENCES IN EVALUATING PRESERVICE EDUCATION PROGRAMS

In May 2002, JHPIEGO conducted a Level III evaluation in Ghana matching Phase I graduates with graduates from non-Phase I schools (according to the Draft Executive Summary, September 2002). They were matched based on province, location, and facility type. There were 142 participants in the study, with 72 Phase I and 70 control graduates. The participants performed midwifery skills at four clinical stations using anatomic models, were given a knowledge test, completed an interview, and provided clinical statistics documenting the total number of deliveries, antenatal care attendance, and provision of family planning methods in the past 3 months. Skills were assessed at four stations. Trained observers used checklists to assess midwives' skills at each station. Knowledge skills were assessed using a 70–item scale testing midwives knowledge in seven areas (antenatal care, childbirth care, partograph interpretation, postpartum hemorrhage care, infection prevention, family planning, and STI/HIV/AIDS services). Subscale and total scale scores were calculated.

Results of the study showed that Phase I students had a mean score of 76.68 percent compared with 71.9 percent of the control group in knowledge; however, total knowledge in the different areas was not significantly different, except in infection prevention (total antenatal care knowledge [p = .097]; childbirth care [p = .878]; postpartum care [p = .420]; partograph case study [p = .077]; postpartum hemorrhage [p = .119]; and infection prevention [p = .001]; family planning [p = 0]; and STD/HIV/AIDS services [p = .499]). Critical clinical skills were 58.01 percent for the Phase I students compared with 54.56 percent for the control group. Of the clinical skills assessed, the Phase I students performed better on handwashing techniques (p = .001), abdominal palpation (p = .007), vulval swabbing (p = .002), and family planning methods information (p = .001). There was no statistically significant difference between the Phase I students and the control group in most skills that required demonstration of clinical competency on a model or particular to nurse midwifery rather than nursing practice. This includes inserting speculum (p = .345), removing speculum (p = .142), controlled cord traction (p = 0), medical history (p = 0), episiotomy repair (p = .543), and newborn resuscitation (p = .151). Some skills associated with infection prevention were not performed better by the Phase I group compared with the control group. This included instrument decontamination (p = .294), cleaning instruments (p = 0), and removing gloves (p = .071).[2]

JHPIEGO's interpretation of the Level III evaluation findings differs from that of the evaluation team. With regard to the skills and knowledge evaluation in Ghana (May 2002), JHPIEGO reports that knowledge questionnaire scores of the Phase I and non-Phase I participants were compared, and intervention group midwives had higher knowledge scores overall (77 percent) compared with midwives in the other group (72 percent). In fact, intervention group midwives scored higher on every subscale and significantly higher on four of the eight subscales (antenatal care, family planning

[2]*Results Report: Distance Learning Program in Advanced Practice Nursing*. Grant results report Web document found at http://www.rwjf.org/reports/grr/031839.htm. Robert Wood Johnson Foundation, July 2002.

services, partograph analysis, and infection prevention). The groups were compared on their performance at the skills stations. Again, the Phase I graduates outperformed the non-Phase I group in several areas. Specifically, Phase I midwives performed significantly better on skills assessing antenatal care (Station One) and labor and delivery (Station Two). In particular, Phase I group midwives performed significantly better on the handwashing, abdominal palpation, vulval swabbing, controlled cord traction, decontaminant preparation, and instrument cleaning subscales. Phase I group midwives also performed better at providing counseling on a family planning method (Station Three) compared with the non-Phase I group. The two groups were not different on postpartum skills (Station Four). There was also a strong trend for Phase I group midwives to perform better on total skills overall and on steps considered "critical" to performance of the skill. No midwife performed all of the 36 critical steps correctly, however, and the majority of all midwives missed one third of the critical steps. A closer look at the missed critical steps revealed that only about half of the midwives from both groups assessed performed newborn resuscitation critical steps correctly.

While there have been student and tutor comments stating that teaching and learning have been made easier with the use of the models, analysis of the Level III evaluation findings suggest that skill competency is not sustained after the preclinical skills evaluation on the models. Numerous factors can affect this outcome. They include an insufficient number of models, models that are only available for IUD skills, insufficient practice time for family planning, large student/preceptor ratios, clinical sites that cannot provide the number of experiences students need, and the lack of preceptors with clinical training skills.

The evaluation team and JHPIEGO are in agreement about key factors that may compromise the long-term impact of training and technical assistance. Information gathered regarding the context of practice, such as constrained resources and understaffing, may be partly responsible for lower than desired performance in some areas. However, JHPIEGO concludes that despite these constraints, the study's findings indicate that the competency-based technical assistance JHPIEGO provided to the midwifery training schools was effective in transferring knowledge and skills, that the effects of the technical assistance were sustained over time, and that this training approach should be adopted for other technical areas or other cadres of providers in Ghana, as well as be applied to other preservice institutions in the region.

JHPIEGO's study in Kenya, completed in 1998, showed that the median knowledge score was 71 percent of the Kenya Community Health Nursing School (KCHN); the enrolled community health nurses were 69 percent and faculty was 75 percent. The ability to perform speculum examinations ranged from fair to poor, with only 37 percent of the students being competent in performing bimanual examinations. Only 41 percent of the KCHN students were able to load IUDs in the sterile packages. Almost none of the students were competent in performing IUD insertion, and only two faculty members were competent in IUD insertion. The mean student/preceptor ratio was seven students for each preceptor.[3] In the study done in Nepal that measured the knowledge and skills of medical students, four component areas were evaluated and competency measured at 100

[3] Thompson, J.E.,R.M. Kershbaum, and M.A. Krisman-Scott. *Educating Advance Practice Nurses and Midwives: From Practice to Teaching.* New York: Springer Publishing Company, Inc., 2001.

percent and 80 percent. The four areas were initial interpersonal communication/counseling, triage, initial history, and family planning history/counseling.

The results elicited are shown in table H–1. Four out of 22 providers addressed family planning history and counseling.

Table H–1
(percentages)

Component Area	All Skills	80 % of Skills
1. Initial IPC/Counseling	18	41
2. Triage	88	88
3. Initial History	0	0
4. FP History/Counseling	0	24

In Morocco, only 35 percent of students believed that they were very experienced in pelvic examination; 20 percent had performed only one on the model, and 8 percent had never performed the skill on the model. While 33 percent of the students felt very confident about IUD insertion and 18 percent felt very experienced in IUD insertion, 39 percent of the students had only performed the skill on the model and 7 percent had never performed the skill on the model. Many students reported low experience and confidence for counseling about side effects resulting from progestin-only contraceptives (Norplant, injectable contraceptives).

JHPIEGO has a more favorable interpretation of the February 2001 evaluation of the impact of the preservice program in the Philippines. The objectives of the evaluation were to determine the current capacity of the participating nursing and midwifery schools to implement the strengthened FP/RH preservice program and to assess the institutionalization of the interventions since the closeout of the TRH program in 1998. The sample consisted of 16 of the 27 program-affiliated schools (8 nursing schools and 8 midwifery schools). Responses were obtained from 29 faculty members, 210 students, 16 school principals/deans, and 16 school clinic administrators.

As reported by JHPIEGO, the February 2001 evaluation findings show that about 80 percent of the FP/RH faculty were providing clinical instruction to students and clinical services to clients attending the school clinics. The findings also demonstrate that all schools continued to emphasize a clinical, skill-related component in their FP/RH curriculum. The faculty continued to use the instructor's guides/clinical program guides, teaching materials, and teaching equipment for both the classroom and clinical portions of the FP/RH courses. Clinical instructors still utilized competency-based training teaching methods/aids (models and demonstrations were the most frequently used [96 percent]). Ninety-four percent of students reported access to anatomic models, and 88 percent reported that they had sufficient time to practice with models. According to students, competencies for FP/RH skills procedures were assessed with checklists (100 percent of the midwifery students and 93 percent of nursing students reported assessment in these areas). The inclusion of FP/RH questions in the licensure examinations signified at the national level the importance of FP/RH content in preservice education. The school clinics, developed as part of the preservice strengthening program, continued to provide a comprehensive range of FP/RH services, but only offered limited opportunities for students to practice FP/RH skills with clients (family planning counseling, breast

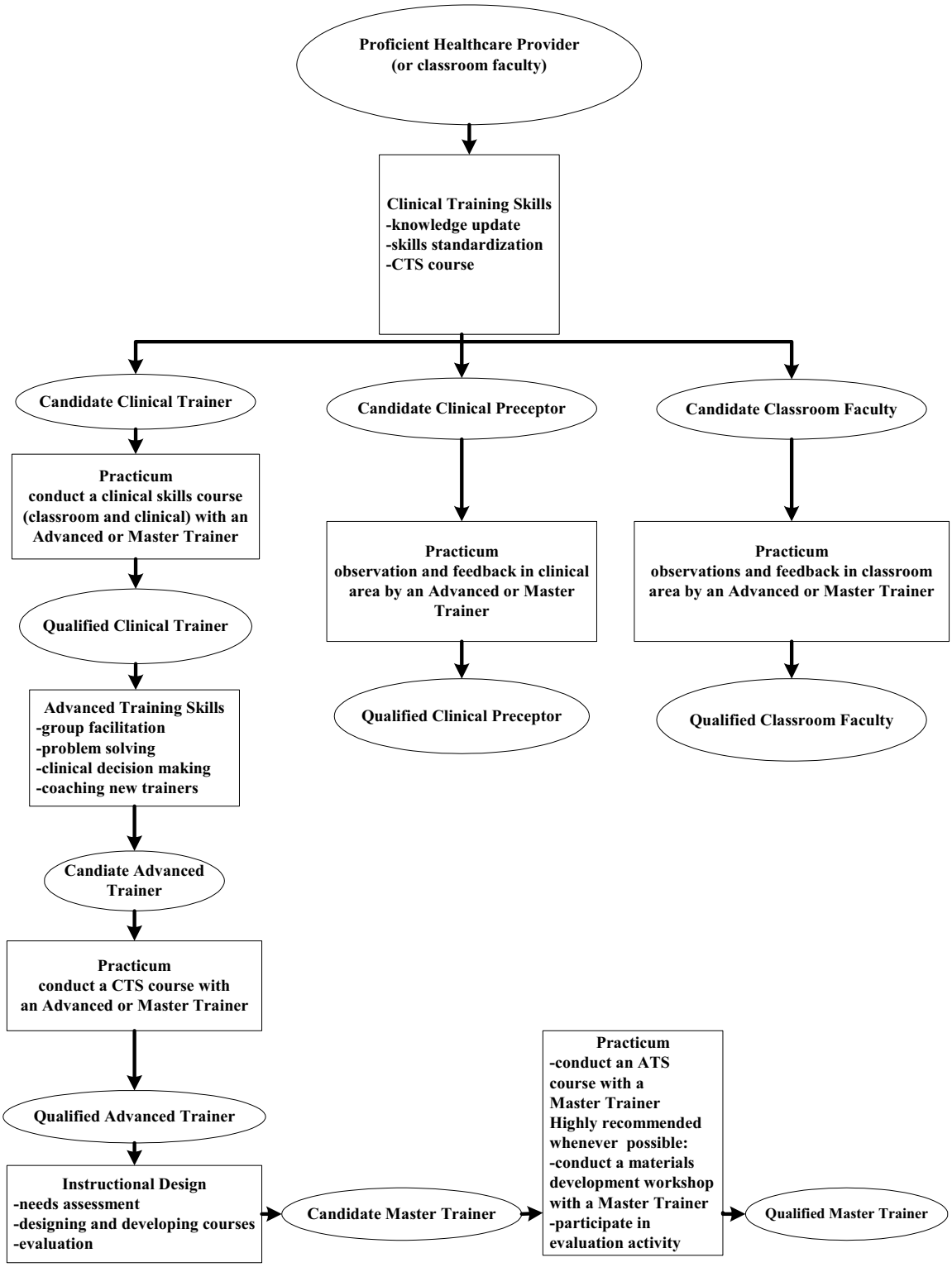
examination, and condom use demonstration were most frequently mentioned by three fourths of the clinical faculty).

Findings from this evaluation also suggest an impact on FP/RH service delivery and evidence of program strengthening. Ninety-three percent of students considered their education as "adequate" to "very adequate" preparation for providing FP/RH services upon employment. Graduates from the preservice program schools performed better on the national licensure examination compared with graduates from other schools. The Philippine nursing and midwifery education system has the capacity to continue implementation of its strengthened preservice education program. This capacity is evident in the availability of trained faculty, the continued implementation of FP/RH curricular components, and the availability of adequate clinical training sites.

APPENDIX I

FACULTY AND TRAINER DEVELOPMENT PATHWAY
(from JHPIEGO)

FACULTY AND TRAINER DEVELOPMENT PATHWAY



APPENDIX J

SUGGESTED GUIDELINES FOR PREPARATION OF PRECEPTORS

SUGGESTED GUIDELINES FOR PREPARATION OF PRECEPTORS

A. Explanation of Curriculum

1. Overall curriculum plan
    a. Philosophy and conceptual framework
    b. Terminal outcomes
    c. Plan of study—sequence of courses
        1) Core courses
        2) Clinical major courses
        3) Electives
2. Orientation to adult learning strategies
    a. Discussion of theoretical and clinical outcomes that relate to clinical assignment
    b. Review principles of adult learning and teaching
    c. Review progress of learner to date in relation to expected clinical performance outcomes
    d. Review clinical evaluation tool and its use

B. Approach to Clinical Teaching

1. Overview and introduction to clinical teaching
    a. Explore positive and negative experiences clinical instructors have had in their own teaching and learning situations
    b. Explore previous experience with teaching in clinical area (e.g., type and level of learner)
2. Teach according to management and/or clinical decision-making process
3. Evaluate according to the management and/or clinical decision-making process (formative and summative done during postconference)

C. Discussion of Philosophy of Teaching of Clinical Instructor

1. Discuss how philosophy of teaching can facilitate learning
2. Discuss teaching techniques needed for level of learner
3. Discuss factors that promote and hinder learning in clinical site
4. Review principles of teaching and learning of particular importance in the clinical area
5. Reinforce strengths clinical instructors bring to the teaching/learning situation
6. Offer assistance as needed to refine/expand teaching expertise

D. Review of Expectations of Teachers and Learners in the Clinical Area

E. Specifics of Clinical Instruction

1. Establish where learner is in the beginning of her/his experience in the setting
    a. Meet with learner and review his/her progress to date in the program
    b. Review specific clinical objectives/outcomes for this rotation
    c. Revise objectives/outcome as needed in consideration of the realities of the particular clinical site
2. Prior to each learning experience, discuss with learner her/his particular objectives for the clinical day as well as teacher expectations (preconference)

3. Discuss learner performance, beginning with learner self-evaluation, at the end of each clinical day (postconference) and set learning objectives for next clinical day
4. Allow time to develop comfort and trust with learner and self as teacher
    a. Begin with close observation of learner to determine level of functioning in clinical area (novice, advanced beginner)
    b. Share rationale and expect rationale from learner, especially when the learner chooses a plan of action different from that the teacher would have chosen
    c. Select teaching method (directing, supporting, delegating) (Blanchard 1985) appropriate to performance of learner while moving the learner toward independence of functioning
    d. Always place errors in perspective
5. Share teacher's boundaries of safety with learner
    a. Define those things the learner may do without direct teacher supervision
    b. Define those things the learner must have teacher present in order to do (at least initially)
    c. Review the practice policies and protocols of the setting

F. Review and Leave Written Contact Information for Course Faculty Contact and Encourage the Clinical Instructor to Call With any Questions or Concerns

Source: Taken from Thompson, J.E., R.M. Kershbaumer, and M.A. Krisman-Scott. *Educating Advanced Practice Nurses and Midwives: From Practice to Teaching*. New York: Springer Publishing Company, 2001.

APPENDIX K

SELECTED TRH PRODUCTS AND TOOLS ADOPTED BY BILATERAL AND OTHER ORGANIZATIONS

SELECTED TRH PRODUCTS AND TOOLS ADOPTED BY BILATERAL AND OTHER ORGANIZATIONS

IMPORTANT TRH PRODUCTS	TRH APPROACHES ADOPTED BY BILATERAL AND OTHER ORGANIZATIONS	
▪ Reproductive health service delivery guidelines ▪ Learning guides ▪ Clinical Training Skills manual and package ▪ PAC reference manual and OJT training package ▪ PS Tools: ReproLine CD–ROMs, TrainerNews ▪ Pocket guides ▪ Supervision reference manual and checklists, group-based learning package based on performance improvement ▪ Infection prevention, CTS, and ATS manuals	**Award/Country** ▪ STARH/Indonesia ▪ DISH/Uganda ▪ FHI/Kenya ▪ AMKENi/Kenya ▪ PSI/Pakistan ▪ SFPS/West Africa ▪ WHO/Geneva ▪ India/Engender-Health, PRIME	**Approach** ▪ Performance imrovement ▪ Competency-based training ▪ Decentralized training system for VCT guideline dissemination ▪ Clinical Training Skills ▪ IUD competency-based training package ▪ Preservice training: CHPS

Substantiation of the Use of TRH Products and Tools

UNFPA

"Since 1995, UNFPA has been supporting the Ministry of Health reproductive health (RH) program to strengthen its capacity to provide integrated RH services through improved skills and competency of staff and availability of the necessary tools. The JHPIEGO Kenya office was supporting similar activities in some parts of the country through decentralized training centers (DTCs). UNFPA was therefore requested by the Ministry to support training in the remaining DTCs. In order to ensure uniformity of training, attempts were made to use similar training materials and models, and hence the order to JHPIEGO for the manuals and models.

"UNFPA procured for the Ministry of Health varying quantities of handbooks and manuals for trainers and participants on CTS, IUD, IP, and FP; models (breast, Zoe, condom, uterus); IP and IUD slide sets, slide projectors and easels; IUDs and Norplant kits. The materials were distributed to the training centers and have been extensively used in RH training. The models, particularly the Zoe model, were found useful because the trainees could practice certain procedures on them, before moving on to a patient/client. The handbooks and other manuals have continued to be useful training and reference materials for the Ministry."

AMKENI Project, Kenya

"We wish to state that AMKENI, a bilateral service delivery project managed by EngenderHealth, has used and continues to use several JHPIEGO training materials extensively. We have found them well presented, user friendly, and adaptable in actual clinical settings. In particular let me mention the following:

- *Infection Prevention for Family Planning Service Programs*: Reference Manual and Videotape
  A very simple yet handy and practical set of materials for service providers that has not only been useful in training but has greatly assisted us in institutionalizing improved infection prevention practices. We are looking forward to the revised version that we understand is in the works.

- *Norplant Implants Guidelines for Family Planning Service Programs*
  Another reference manual that has proved extremely useful in training in insertion/removal and managing complications. Of note, AMKENI was recently called upon to conduct a national Norplant training of over 400 service providers in order to scale up services, and we used this manual throughout.

- *Clinical Training Skills for Reproductive Heath Professionals*
  The training and supervision technical team of AMKENI that assists MOH to strengthen systems and review RH policies has used this as major resource material in TOT and guidelines and curriculum development.

- *Pocket Guide for Family Planning Service Provider*
  A very useful companion for FP providers in our project.

- *IUD Guidelines for Family Planning Service Programs*
  We have used this manual in basic training as well as in update and refresher courses in our project. AMKENI in collaboration with FHI is assisting MOH in IUD rehabilitation project and this manual is the main resource.

- *Madam Zoe* pelvic model
  In AMKENI this is an indispensable tool in minilaparotomy under local anesthesia, MVA, and IUCD training."

This informant participated in the CTS training while a lecturer at Nairobi University and subsequently used CD–ROMs to develop teaching materials and presentations. She reports that other CTS participants have expressed that they are more confident in

- planning, demonstrating, and coaching during a clinical training session;

- asking questions during classroom and clinical training sessions;

- providing feedback during classroom and clinical sessions; and

- using learning guides and checklists to assess a trainee's progress in learning clinical skills/activities.

TRH training materials used include:

- *Postabortion Care Course Handbook*, guide for participants
- *Postabortion Care on the Job Training*, supervisor's guide
- *Infection Prevention for FP Service Programs*, a problem-solving reference manual
- *Clinical Training Skills for Reproductive Health Professionals*, 1st and 2nd editions
- *The Essentials of Contraceptive Technology*, a handbook for clinic staff
- *IUD Guidelines for FP Services Programs*, a problem-solving reference manual

EngenderHealth (India, Turkey)

The informant reported that the service delivery guidelines, pocket manuals, and other documentation developed by JHPIEGO were widely used by EngenderHealth and PRIME in India and Turkey. Those documents, as well as the IUD training course and materials and the sterilization training materials for minilaparotomy and abdominal tubectomy, are still disseminated through the project. EngenderHealth has made extensive use of the competency-based training and materials package, as documented at the "Training: Best Practices, Lessons Learned and Future Directions" conference (May 2002). It was further noted that the collaboration between JHPIEGO and EngenderHealth "worked well" and that JHPIEGO's strength in preservice education was critical to the overall success of health systems strengthening activities undertaken by other cooperating agencies in India and Turkey.

FHI Kenya

"The dissemination of the VCT guidelines using the decentralized training system seems to be the best mode in Kenya right now for getting information quickly and thoroughly to the health providers in the field. As you know, FHI and JHPIEGO collaborated a few years back on using this system for training/dissemination of reproductive health information to health workers in the districts working at all health facilities. JHPIEGO did the training/dissemination and FHI did the evaluation of the system. The results showed that the training system used was very effective in changing the knowledge of the health workers in the facilities and that if a support visit to the facility was also made, there were even higher knowledge gains.

"So, when we wanted to have our VCT guidelines for health workers (trying to educate them on this new service and what they should know about it to inform their clients, not to [perform] the service) we asked JPHIEGO. While we had hoped to also do a study on the effectiveness of the intervention like we did with the reproductive health guidelines, we didn't due to the increased costs. But we figured, 'if it worked for FH why not VCT?'

"In any case, the dissemination/training using the decentralized training teams was undertaken with seemingly good effect. We recently held our own evaluation of the IMPACT Kenya program and the evaluators did not document any lack of knowledge among health workers about VCT. On the other hand, we have other guidelines that we have produced, and have done some dissemination of the guidelines with less success that the evaluators did pick up. We were very satisfied with the JHPIEGO system of training through the decentralized training teams. I think this will be the way for other important training/orientation subjects to take place in the RH and HIV area in Kenya in the future."

Impact of TRH in India

As an independent consultant, this informant conducted interviews in connection with Uttar Pradesh and talked with people in medical schools about the physician training and other training activities. It became clear that the approach to clinical training currently in use was introduced by JHPIEGO more than 10 years earlier, although JHPIEGO is not credited with introducing the model. Anecdotal evidence suggests that the training materials have been widely adopted and are now used by local organizations. In Kenya and India, some of JHPIEGO's training approaches are used in other disciplines. As an example, the informant reported that "…senior people trained as obstetricians/gynecologists report that their students placed pressure on other departments in the medical schools to change their teaching approach after going through (JHPIEGO) gynecology rounds."

The JHPIEGO Kenya office reported that the following organizations are using JHPIEGO materials:

- UNFPA
  - Anatomic models (Zoe)
  - Infection prevention reference manuals
  - IUD package
  - CTS package
- AMKENI
  - CTS package
  - Norplant package
- Liverpool Project
  - VCT orientation package
- Marie Stopes International
  - VCT orientation package
- Family Planning Association of Kenya (FPAK)
  - CTU orientation package
  - Pregnancy checklist

APPENDIX L

REFERENCES

REFERENCES

Brechin, S.J.G., T.M. Smith, and L. Schaefer. *Family Planning/Reproductive Heath Skills Assessment of Nurses in Kenya; Basic Training in 12 Institutions.* JHPIEGO, 1998.

Brechin, S.J.G., L. Schaefer, K. Garner, and M. Lacoste. *Retention of Training Skills in Family Planning Trainers—Results of a 1997 Follow-Up Assessment in Zimbabwe.* JHPIEGO, 2001.

Central Board of Health. *Postabortion Care (PAC) Orientation for Managers 2002.* Central Board of Health, University of Teaching Hospitals, Department of Obstetrics and Gynaecology, Lusaka, Zambia, 2002.

Clinical Skills Training Course for Trainers. (Undated)

Clinical/Trainer/Preceptor Manual. Labour and Delivery, Accra, Ghana, 2000.

Escuela de Enfermeria. *Estadísticas del Uso del TALC: 15 Sep 01–28 Sep 02*. Sucre, Bolivia: Universidad Mayor Real y Pontifica de San Francisco Xavier de Chuquisaca, September 2002.

_____. *Informe Económico Nodo Internet JHPIEGO.* Sucre, Bolivia: Universidad Mayor Real y Pontifica de San Francisco Xavier de Chuquisaca, September 2002.

Family Health International. *The Effectiveness of National Dissemination of Updated Reproductive Health/Family Planning Guidelines in Kenya*. 2001.

Hanning, M. and U.W. Spangberg. "Maximum Waiting Time—A Threat to Clinical Freedom? Implementation of a Policy To Reduce Waiting Times." *Health Policy* 52(1):15–32, 2000.

Jensen, Michael. "The African Internet—A Status Report." Web document found at http://demiurge.wn.apc.org/africa/afstat.htm. July 2002.

JHPIEGO. *An Assessment of the Quality of Post Abortion Care Services in Nepal: Training and Service Delivery Perspectives*. (Undated)

_____. "JHPIEGO TrainerNews Survey Results and Drawing Winners." *TrainerNews*. Web document dated August 1, 2001, found at http://www.reproline.jhu.edu/english/6read/6issues/6jtn/v4/tn17survey.htm.

_____. *Fact Sheet—Information Update Technology.* Baltimore, Maryland: JHPIEGO. (Undated)

_____. *Fact Sheet—Training Information Management Systems*. Baltimore, Maryland: JHPIEGO. (Undated)

_____. WebTrends reports for web site traffic, January 1 to December 31, 2001.

_____. "Human Resources Development Scope of Work." Submitted to USAID/Malawi, July 2000.

_____. *Responses to Training in Reproductive Health Project.* Self-assessment questions, 2002.

_____. *Strengthening Family Planning and Safe Motherhood Clinical Training in Moroccan Medical Schools: Evaluation of Student Performance.* 1999.

_____. "TRH Workplan FY 2002: New Initiatives—Postabortion Care Task Force 6." August 2001.

_____. "TRH Workplan FY 2002: Africa." August 6, 2001.

_____. Zambia briefing document for evaluation team. 2002.

Lacoste, Maryjane et al. "Establishing an Electronic Nursing Registry at the Nurses and Midwives Council of Malawi: More Effective use of Personnel Data for Planning and Decision-Making." (Undated)

Linyenga, Linley. "Establishing an Electronic Nursing Registry at the Nurses and Midwives Council of Malawi: More Effective Use of Personnel Data for Planning and Decision-Making." Paper prepared for the ECSACON 6th Scientific Conference, Malawi. August 2002.

Maier, Natalie. "Ghana Trip Report." Baltimore, Maryland: JHPIEGO, June 2002. (Unpublished paper)

_____. *Malawi Health Human Resources Information Systems: Supporting the Development and Monitoring of Health Human Resource Deployment and Training Policies and Plans*. Baltimore, Maryland: JHPIEGO, September 2002. (Draft)

McHugh, K. and P. Armstrong. *CNEP/FSMFN Preceptor Training Manual*. Frontier School of Midwifery and Family Nursing, 1991.

Oliveras, Elizabeth. *JHPIEGO's Work in Policy: A Comprehensive Review*. 2000.

Pons, M., B. Rawlins, and S.J.G. Brechin. *Institutionalization of Reproductive Health Preservice Education in the Philippines: An Evaluation of Program Effects*. JHPIEGO, 1997–1998.

Rawlins, B., Susan Brechin, and Kamales Giri. *An Assessment of the Quality of Postabortion Care Services in Nepal: Training and Service Delivery Perspectives.* USAID, 2001.

Reproductive Health Classroom and Clinical Activity Guide for Training Midwives—A Supplement to the Midwifery Curriculum. (Undated)

Reproductive Health Unit. "Training Information Monitoring Systems." Lilongwe, Malawi: JHPIEGO. Paper presented at RHU retreat, March 2002.

Results Report: Distance Learning Program in Advanced Practice Nursing. Web document found at http://www.rwjf.org/reports/grr/031839.htm. Robert Wood Johnson Foundation, July 2002.

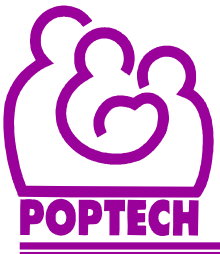
Schenk-Yglesias, Catherine. "Increasing Access to Reproductive Health Information in Low-Resource Settings: Evaluation of the Technology-Assisted Learning Center in La Paz, Bolivia." (Undated)

Tambudzai, Rashidi, M.J. Machoki, M. Lacoste, and J. Gondwe. *Results of a Study of PAC Services in Four Central Hospitals in Malawi for the Period 1 March–31 May, 2002*. 2002.

Thompson, J.E., R.M. Kershbaum, and M.A. Krisman-Scott. *Educating Advance Practice Nurses and Midwives: From Practice to Teaching*. New York: Springer Publishing Company, Inc., 2001.

_____. "Training Information Monitoring Systems Ref. No. MED 4/97." Memo to RHU staff, Malawi: RHU, 2002.

USAID. "Cooperative Agreement: The Training in Reproductive Health III Project," #HRN–A–00–98–00041–00. 1998.



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